



THE EXAMINATIONS: SESSION 1895-96.

FORTY years ago, when a promising youth of fifteen summers expressed, in the innocence of his heart, a wish to be an architect, his parents or guardians were often sadly perplexed with the unexpected announcement; and though, perhaps, they would not betray their ignorance by asking, as the late Sir Henry Cole did, "What is an architect?" they consulted their morning newspaper with excusable diffidence, and did not always find what they wanted, nor, indeed, what was always good for a "young man with a taste for drawing," under the accustomed advertisement "To Parents and Guardians." It was, however, absolutely necessary, they found, to get the young man into an architect's office, and in most cases a premium was paid for him, varying from £100 to £500, as the position of the architect might dictate. But the premium paid, and the young man duly and legally bound by deed of almost mediæval phraseology, the said parents had no means of judging for themselves whether the education to be received by their son was systematic or the absolute reverse—whether he would be taught, or be expected to pick up his teaching—and whether, if no system of teaching, or, indeed, no teaching whatever existed, there was any goal, near or remote, to which the unfortunate neophyte might direct his steps. Men of fifty-five who are now architects will have little difficulty in answering these queries—aye, and there are men of forty who will be able to state that the answer given by their seniors applies with equal force to their own time and its youthful experiences. Indeed, the President of the Institute, Mr. Penrose, who some fifty years ago was measuring the Parthenon, embodied whole chapters of such experiences in his pregnant remark, made to Students last January [p. 162], that the only book in the office in which he was a pupil was Peter Nicholson's *Dictionary*.

And is it very different now? And, if different, is it better than in the forties, the fifties, and even the sixties? Time, of course, will show; but meanwhile it may be confidently asserted that the parents or guardians of any promising youth who to-day conceives the idea that nature intended him to be an architect possess the means of ascertaining at a glance the course or curriculum which some hundreds of young men have already followed with considerable success, and the goal to which they have advantageously directed their steps. Neither system nor goal may be of the least use or benefit to intending architects—and this has been said and is still maintained by a few—but at least both system and goal practically exist, which was not the case even a quarter of a century ago; nay, more, they flourish and bear fruit, as the registers of the Institute during the last thirteen years suffice to prove.

Assume that a young man of the present time, having had what in this country is called a good education, honestly believes that his tastes, his capacities, his worldly position, fit him for a professional career such as that which the architect of to-day follows. His parents or guardians have, ready to their hand, a complete outline of education to be duly tested by examination. They may obtain full particulars of the scheme at the Institute in London, or

at any of the Allied Centres in the United Kingdom. If in Ireland, application may be made to the Institute of the Architects of Ireland in Dublin; if in Scotland, to the Glasgow Institute or the Dundee Institute; if in North Wales, to the Liverpool Society; and if in South Wales, to the Cardiff Architects' Society. Similar applications may be made to the Societies of Sheffield, Leicester, Manchester, Newcastle, Bristol, Nottingham, Birmingham, Leeds, Exeter, and York, each of which is the centre of a district, and able, if the opportunity offered, to carry out a local scheme of education, tested by examination, for architectural students. Assume, therefore, that a young man, either before or at the moment of entering an architect's office as an articled pupil, applies to be admitted to the first of the three examinations qualifying for candidature as Associate R.I.B.A., namely, the Preliminary, which embraces—(1) Writing from dictation; (2) Short English Composition; (3) Arithmetic, Algebra, and the elements of Plane Geometry; (4) Geography and History; (5) either Latin, Italian, French, or German, at the applicant's choice; (6) either Geometrical Drawing or the Elements of Perspective, at the applicant's choice; (7) Elementary Mechanics and Physics; and (8) Freehand Drawing from the Round: the applicant has to show, with pen and pencil, during two days (a Tuesday and a Wednesday from 10 a.m. until 5.30 p.m.), that he is conversant with all the eight subjects above named. But if he has passed certain Examinations, such, for instance, as the Matriculation Examination at any University in the British Empire, or the Senior Local Examination conducted under the authority of any such University, he may be exempted from sitting for the first, second, third, fourth, fifth, and seventh subjects, though the Certificates he must submit in support of his claim exempt an applicant only in the subjects they cover. He may be further exempted from sitting for the sixth and eighth subjects if the drawings which he has to send in for the purpose are deemed satisfactory. But say that he passes, either by sitting for the Examination or by exemption after due inquiry. He is then registered in the Books of the Institute as a "Probationer," entitling him to many privileges, not the least of which is the use of the Library of the Institute if he be a resident in London; and if he reside in any other part of the United Kingdom, he has at least the Loan Collection of books at his service.

In the deed by which the young man has been articled to an architect, say for three years, his parents have taken care to insert a proviso [see *Forms of Articles of Pupilage* in the KALENDAR] that "with the object of enabling the pupil to qualify himself for passing the "Examinations for Studentship and Associateship R.I.B.A., he (the principal) shall and will "allow the pupil such absence as he (the Principal) shall deem reasonable for the purpose of "attending lectures, classes of instruction, and the said Examinations." And the Principal might be induced to go further, and covenant to allow the pupil to prepare in the office and during office hours the "Testimonies of Study" which the latter has to submit within a minimum period of two years for admission to the second of the three examinations qualifying for candidature as Associate—namely, the Intermediate. These so-called "Testimonies"* consist of drawings and a written description, illustrated by sketches, that is to say:—

Art Section.—1 and 2. Two sheets, giving examples (one on each sheet) of any two of the Orders of Architecture here named—the Doric, the Ionic, or the Corinthian—fully figured, drawn in outline with the ornament and enrichments filled in; each sheet to contain two columns of one Order with entablature complete, drawn to scale (the columns being not less than 10 inches high on the paper), and details one-eighth full size.

* Probationers R.I.B.A. who are Architectural Students of the Royal Academy are permitted, in lieu of the Testimonies of Study Nos. 1 to 7 here specified, to submit for the approval of the Board of Examiners their work done in and for the Royal Academy School, provided that the drawings so submitted comprise studies applicable to paragraphs Nos. 4, 5, and 6, whether prepared for the Royal Academy or otherwise.

3. One sheet of details of Classic Ornament in outline.

4 and 5. Two sheets, containing examples (one on each sheet) of any two of the Periods here named—the Early English, the Decorated, or the Perpendicular—such as a door, a window, or an arcade, in plan, elevation, and section.

6. One sheet of details of Mouldings and Ornament relating to such examples, to Scale.

7. One sheet of ornament—freehand drawing from the round, in outline.

A concise description, giving such particulars as may be accessible, of the building or buildings from which the several subjects are taken, with the dates of erection and other details, illustrated by sketches of plan, general elevation, &c., and written on foolscap paper, on one side only—the whole to be the work of the Probationer's own hand.

Science Section.—8. One sheet containing diagram of timber-framed Roof Truss, not less than 30 feet span, with the nature of the strain on the several parts marked thereon, the ironwork and the junctions of the timbers drawn to a scale of one inch and a half to the foot, in isometrical projection, and dissociated.

9. One sheet showing in similar manner (see above) at least two varieties of each of the following Floors—viz. framed timber, combined iron and timber, and fire-resisting.

10 and 11. Two sheets of details of Joiner's Work in doors, windows, and fittings, shown in plan, elevation, and section, to the scale of one inch to the foot; with details, to a larger scale, of mouldings and framing.

If these "Testimonies" are approved by the Board of Examiners, the Probationer is admitted, and he has to pass a Written and Graphic Examination, on some Tuesday in November or June (from 10 a.m. until 5.30 p.m.), in (1) The Orders of Greek and Roman Architecture, (2) The Several Varieties of Classic Ornament, (3) English Architecture from the Conquest to A.D. 1500, and (4) The Characteristic Mouldings and Ornament of each period. On the subsequent Wednesday (from 10 a.m. until 5.30 p.m.) he has to pass a Written and Graphic Examination in (5) The Nature of Ordinary Building Materials, (6) The Calculation of Strengths of Materials and Resistances from Data and Formulas given, (7) The Elementary Principles of Construction, (8) Elementary Physics as applicable to Building, (9) Mensuration, Land Surveying, and Levelling, and (10) Plane Geometry applied to actual work. On the subsequent Thursday the Probationer is orally examined on the Written and Graphic work he has executed during the two previous days, and on the Testimonies of Study he submitted prior to admission to this Intermediate Examination, the successful passing of which entitles him to registration as "Student R.I.B.A." His name then appears in the List of Students published in the Annual KALENDAR of the Institute, whereby he enjoys, to all intents and purposes, the privileges of a member of the Body Corporate, except, of course, voting in General Meeting and otherwise, and of receiving the JOURNAL and other publications free.

The third and last of the examinations qualifying for candidature as Associate is called the Final, and before a Student R.I.B.A. can be admitted to it, he must submit for approval, say, within a minimum period of two years, further Testimonies of Study, defined as follows:—

Art Section.—A subject of Classic Architecture, shaded in sepia, Indian ink, or hatching, according to the rules of sciography.

A study in perspective of Classic, Mediæval, or Renaissance Architecture, in outline or shaded.

Two studies of Ornament from the round, shaded, or hatched—one Classic or Renaissance; the other Mediæval.

A design for a Building of moderate dimensions, such as a detached villa, parsonage, school, local institution, or cottage hospital, to be fully drawn out as working drawings to a scale of not less than one-eighth of an inch to the foot, in plans, elevations, and sections, duly figured and showing construction, water-supply, drainage, ventilation, &c., with sheets of details of the construction and ornament, and a perspective view.

Drawings of some Historical Building, or part of a Building, made from actual measurement, with the jointing of the masonry, &c., correctly shown, and the construction; the whole in plan, elevation,

and section, carefully figured, with details at least one quarter full size. The original sketches measured and plotted on the spot are to be appended.

Any sketch-books, evidences of study of buildings and of travel, the candidate may desire to submit, not exceeding three in number.

Science Section.—Two or more sheets of drawings showing the construction of Roofs, Floors, Arches, Retaining Walls, &c., with all the calculations for strength of the various parts fully worked out and appended thereto.

Two sheets of diagrams of Constructive Masonry—arches, vaults, or groined vaults, with the projections of the arch and vault-stones. These may, if the candidate think fit, be supplemented by complete drawings of a groined vault of any period between A.D. 1100 and 1550, from actual measurements, in plans and sections, with details of mouldings, ribs, and surfaces, accompanied by a full description of the construction, and a short historical account of the building from which taken.

Satisfactory evidence, with sketches, of having followed the carrying-out of building works, and notes of the progress and conduct of such works.

If his "Testimonies" are approved by the Board of Examiners, the Student, who must have attained the age of at least 21 years, is admitted to the Final Examination, which is an affair of six days (annually in November–December and in June–July), five of which are devoted to the Written and Graphic, and one to the Oral portions. The programme is as follows:—

FRIDAY.—1. Design of a building of moderate dimensions, or a portion of a more important edifice, to be made from particulars given, with details of construction and ornament. The drawings on this day to comprise plans, elevation, and section, to a scale of $\frac{1}{4}$ inch to the foot.

SATURDAY.—1. Design continued, comprising on this day the constructional and artistic details of the Design drawn on Friday.

MONDAY.—2. The History of Architecture, to be illustrated by sketches. The leading characteristics, history, and development of the principal styles of Architecture. Particulars of celebrated buildings and their Architects.

The special characteristics and history of any one period selected by the *Student*, which may be—

- (i.) Architecture of Italy or France from the tenth to the end of the fourteenth century.
- (ii.) Architecture of Italy or France between 1400 and 1800 A.D.
- (iii.) Architecture of England between 1100 and 1550 A.D.
- (iv.) Architecture of England between 1550 and 1800 A.D.

3. Architectural features, Mouldings and Ornament—

- (i.) Characteristic of architectural styles generally.
- (ii.) Characteristic of the special style selected by the *Student*.

TUESDAY.—4. The principles of Hygiene in relation to Architecture. Materials and construction with regard to health, drainage, water-supply, ventilation, lighting and heating.

5. Materials. The nature and properties of Building Materials: their decay, preservation, and quality, and their application in building.

6. Strength of Materials. The principles of stresses and strains; formulas for their calculation, and their graphic determination.

WEDNESDAY.—7. Construction. The principles of Construction and their application in practice to foundations, walls, retaining walls, arches, vaults, girders, floors, roofs, &c.; and constructive details in all trades. Shoring, underpinning, and dealing with ruinous and dangerous structures.

8. Specifications and Estimating. A specification of the work in two or more trades. The manner of specifying for the other trades. The measurement and valuation of the cost of Buildings and Materials.

9. Professional Practice. The Conditions for Building Contracts. The relative position, duties, and responsibilities of client, architect, and builder. The Legislative enactments relative to Building.

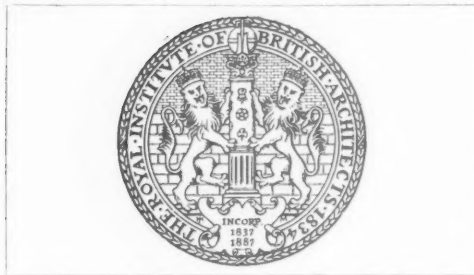
THURSDAY.—Oral Examination on the Testimonies of Studies submitted by the *Student* and on the Written and Graphic work executed by him during the Examination.

The Student who successfully passes this last educational ordeal becomes qualified for the Associateship of the Institute, and eligible for the award of the Ashpitel Prize, which is annually presented to the candidate who has most highly distinguished himself in the Final Examinations held during the year in which he has passed.

At the present hour the number of persons engaged in these several grades of preparation for the practice of architecture may be roundly counted as from 900 to 1,000. There are, on the books of the Institute, 736 Probationers; 142 Students, some of whom have qualified for candidature as Associate, but have not yet applied; while 25 Associates who have passed through the three courses of study and examination, with 6 others who in the first instance passed as Probationers; and it must not be forgotten that these Progressive Examinations only came into force, actually and officially, on the 1st January 1895. The entire ranks of the Associates now number 925, of whom 580 have been admitted after examination; and these are exclusive of many who, from change of profession, resignation, or death, have dropped out of the ranks. The number of those already so qualified, but who have not applied for admission as Associates (and who have not passed through the grades of Probationer and Student), reaches a considerable figure.

It remains only to anticipate a criticism on the satisfactory statement it has been possible to prepare for the information not only of the Institute, but of the public. The Institute merely examines, it does not teach! The Institute has founded an educational polity, but it does not assist the aspirant, the Probationer, and the Student to obtain the Course of Study relating to each grade, and on the details of which it only offers a means of examination. *Soit!* and, to put the matter brutally, the Institute does not care, provided an aspirant, a Probationer, or a Student is able to execute the work required of him at the Examinations, how he has obtained such information. It is sufficient for the Institute that he has got the minimum knowledge asked for on the lines and under the heads of the respective examination-programmes laid down for his guidance. Courses of study, based on these programmes, are already organised, and are being organised, all over England and in parts of Scotland; and no teaching body is more earnest in this particular than the Architectural Association (London). A diligent perusal of the *KALENDAR*, in the section devoted to the Allied Societies, will suffice to show what are the "Local Educational Facilities" at each of the District Centres in the United Kingdom this year of grace; and those who can carry their minds back for a quarter of a century, or even for fifteen years, will probably admit that the development of such local facilities is not the least remarkable result of the Obligatory Examination which first came into force in 1882.

So far, the subject has been the three Examinations qualifying for the Associateship, which must necessarily be confined to persons just beginning life. There are, however, many others who have served articles and begun the practice of their profession as assistants and as masters who are not members of the Institute. For them, a loophole of admission is provided in the Special Examination held twice a year, which is open to architects in practice not less than 25 years of age, and to chief assistants over 30 years of age, who can be exempted (by special resolution of the Council) from passing the Preliminary and Intermediate Examinations and from submitting "Testimonies of Study." They are admitted—and the privilege will be allowed to continue for a short period—to a Qualifying Examination, viz. the "Final" just described, which is conducted with especial regard to the requirements of such architects, their professional works and position being duly taken into account by the Board of Examiners.



9, CONDUIT STREET, LONDON, W., 25 July 1895.

CHRONICLE.

PROPOSED NEW BRIDGE AT VAUXHALL. Deputation to the London County Council.

On the 17th inst. a deputation consisting of several members of the Art Standing Committee—namely, Mr. Alfred Waterhouse [F.], R.A., Sir Arthur Blomfield [F.], A.R.A., Mr. J. M. Brydon [F.], Mr. W. D. Caröe [F.], M.A., Mr. W. H. Romaine-Walker [A.], and Mr. E. W. Mountford [F.], Hon. Secretary of the Committee—attended at Spring Gardens to confer with the Bridges Committee of the London County Council on the subject of the new bridge at Vauxhall.

The deputation was courteously received by the Bridges Committee, before whom were laid the drawings showing the design prepared by the Art Committee for the proposed new bridge, which had been submitted to and approved by the Council of the Institute. Mr. Waterhouse explained at some length the views of the Art Committee with respect to the bridge, saying that it was their desire to interfere as little as possible with the design for the ironwork prepared by the engineer of the County Council. The Committee had increased the width of the stone piers from 12 feet 6 inches to 17 feet, arguing that such a width was necessary in order to give the bridge the monumental appearance so important a structure deserved. The piers had been so designed that none of the horizontal features of the ironwork were continued across them. The footpath had been corbelled out from the bridge, partly with a view to the probable reduction of cost, but more especially to obtain a sufficient degree of shadow upon the ironwork beneath, and to obviate the necessity for a cornice. On the bridge side of the piers refuges had been formed, elliptical and very shallow on plan, each provided with a stone seat divided into compartments by stone arms. It was proposed to reproduce in a somewhat more solid shape the characteristic design of the balustrade over the existing bridge, with lamp standards intended to form an integral part of the balustrade. It was suggested that above the water-line Portland stone might be substituted for the usual granite,

as being less in cost and more pleasing in appearance.

Following Mr. Waterhouse's remarks a general discussion took place between the members of the Bridges Committee and the deputation. The Chairman of the Bridges Committee expressed a fear that the Thames Conservators would not allow the proposed increase of width in the piers of the bridge. Finally, Mr. Waterhouse was requested to put the views of the deputation into writing and to forward them to the County Council. On retiring, the members of the deputation were cordially thanked by the Bridges Committee for the trouble they had taken, and for the public spirit they had displayed in the matter.

The new Form of Agreement and Schedule of Conditions for Building Contracts.

At the Special General Meeting of the 8th inst. Mr. Frederick Todd [F.], one of the Hon. Auditors for 1895-96, inquired whether the proposed issue of the Form of Agreement and Schedule of Conditions for Building Contracts would occasion any expenditure on the part of the Institute. If such were the case, and they were to be saddled with the costs, he would call attention to the fact that, according to the last account, the expense already incurred amounted to £189. 18s., of which sum £50 had gone for printing. The Institute could ill afford additional outlay, and he submitted that the matter should be seriously considered before further expenditure was sanctioned—at any rate for the present. But the President ruled that as no notice had been given of the question, and as the Meeting for that evening had been convened for a specific purpose, the speaker was out of order. Attention was, however, called to the resolutions entered on the Minutes of the Meeting of the 18th May [p. 522], which approved and authorised the issue of the new Form of Contract, and withdrew the sanction of the Institute to the further issue of the old "Heads of Conditions." As a matter of fact, the new Form of Agreement and Schedule of Conditions for Building Contracts is unlikely to be a loss. Steps were early taken to secure and preserve the property of the Institute in the copyright, and, judging by the number of copies sold annually of the "Heads of Conditions," in which the copyright was not strictly preserved, the new document, at the increased price of One Shilling, may be anticipated to ultimately reimburse its cost and prove a small source of revenue to the Institute.

A copy of the new Form is issued with the present number of the JOURNAL to every member of the Institute.

The Grant to the Architectural Association.

At the same Meeting Mr. Woodward, Hon. Associate-Auditor for 1895-96, asked, though he did not press for an answer, whether the Council

had the power to give £100 to the Architectural Association for this, the fourth year on which such a grant had been made, adding that the Institute had only sanctioned a grant of £100 per annum for three years. Mr. Woodward was not answered, nor was he strictly accurate in his observations on this subject. Anyone desirous of knowing what was originally decided and has since been done may be well advised to consult *The R.I.B.A. Journal*, N.S., Vol. VIII. p. 147 (28th January 1892). As a matter of fact, the Institute, in General Meeting on the 8th June 1891 decided to afford pecuniary assistance towards the establishment and carrying out of the A.A. scheme of education, and there and then instructed the Council to "consider and decide as speedily as possible in what manner and to what extent such pecuniary assistance" should be given, so as to render it most beneficial in its results. The Council immediately appointed a Special Committee to consider the matter, and the Committee's suggestions were referred to the Finance Committee for consideration and report, the result being that the Council decided to grant a sum of £300, to be paid in three annual instalments, in support of the A.A. educational scheme. This decision was communicated to the Institute on the 25th January 1892, and the first instalment was paid to the Association a few days afterwards. The two other instalments were paid on the 31st January 1893 and 1894 respectively. Early in March of the current year a letter was received from the Committee of the Association expressing a hope that the Council would continue the annual grant which had been made on behalf of the Institute during the past three years, and stating that the assistance thus afforded had been of the greatest value in enabling the Association to carry on its educational work in a far more efficient manner than would have been possible without it. The letter was referred to the Finance Committee, whose Resolution on the subject was as follows:—"That it be recommended to the Council to make a grant of £100 this year to the Architectural Association, but to add thereto an intimation that it may not be possible to continue it in 1896 and subsequent years." The recommendation was approved and adopted on the 25th March, and a sum of £100 was included in the Estimate of Expenditure for 1895, which formed part of the Council Report issued to members last April, which Report was approved and adopted *nem. con.* by the Sixteenth Annual General Meeting held in May. In due course, on the 24th June 1895, a cheque for £100 was signed and ordered to be issued to the Association.

The Examinations (Architecture), 1895-96.

A Preliminary Examination to qualify for Registration as Probationer, and an Intermediate Examination of Probationers wishing to become

Students R.I.B.A., will be held on the 12th and 13th November 1895—the oral examination of Probationers taking place on the 14th November. A Final Examination, qualifying for candidature as Associate, will be held from the 22nd to the 30th November 1895 inclusive. The admission fees to these examinations are:—Preliminary, one guinea; Intermediate, two guineas; Final, three guineas, such fee being placed to the Student's credit as his entrance fee should he be elected an Associate within eighteen months from the date of passing the Final Examination.

In 1896, or at least that part of it included in the Institute Session 1895-96, the Preliminary and Intermediate Examinations will take place on the 16th and 17th June, and the Oral Examination for the Intermediate on the 18th June. The Final Examination is fixed to take place from the 26th June to the 4th July inclusive, the last three days being devoted to the Oral portions of it. The admission fees to these examinations will be:—Preliminary, two guineas; Intermediate, three guineas; Final, four guineas, three of which will be placed to the Student's credit as his entrance fee should he be elected an Associate within eighteen months from the date of passing the Final Examination.

A brief sketch of these examinations will be found on preceding pages, and programmes with forms of application may now be obtained at the office of the Institute.

The British School at Athens [p. 534].

At the General Meeting of the 10th ult. it may be remembered that the President invited attention to the excellent work done by the British School at Athens, and to its present hampered condition from want of funds; urging its claims to an annual grant from the Government in order to place it on an equal footing with the French, German, and American Schools, which are liberally supported by their respective Governments. A resolution was thereupon passed authorising the Council, on behalf of the Institute, to join in the appeal which was being addressed to the Prime Minister from various quarters with a view to getting the claims of the School publicly recognised. As a result of the meeting held in support of its interests at St. James's Palace on the 9th inst., when H.R.H. the Prince of Wales presided, the School may now reasonably hope to be supported in a manner commensurate with its importance and its name. A full report of the proceedings at this meeting will be found in *"The Times" Cuttings Book* in the Library. For present purposes it is sufficient to give a description of the School and its work, mainly derived from the admirable address delivered on the occasion by the Prince of Wales.

The School was founded twelve years ago for the study of Greek archæology, literature, and

art, in accordance with a scheme propounded by Professor Jebb in a Paper published by him early in 1883. A plot of ground for the erection of a building was generously granted by the Greek Government on the slopes of Lycabettus. With the funds subscribed at a meeting held at Marlborough House under the presidency of the Prince of Wales, a house, designed by the first Director, Mr. Penrose, was erected. In the library and reading-room of this building meetings are held in which problems of classical learning are discussed; the students are guided in their studies by the Director; and the School serves as a rallying-place, not only for special students of classical subjects, painters, and architects, but for the numerous British travellers attracted to the spot by its classic associations. The advantage to travellers of being able to consult a good library and obtain the advice and guidance of the Director of the School cannot be overestimated. Advanced students from the Home Universities have continued and completed their studies there with the greatest profit, and many of them have produced original work which has commanded the approval and respect of foreign scholars.

The excavations in Cyprus, in which the School has borne part, have yielded inscriptions and works of art of various styles and periods, especially in pottery and terra-cotta. The exploration of Megalopolis was an undertaking by which the School has obtained results of great importance and interest. Other sites in Greece have been explored, and lately ground has been broken at Alexandria. Valuable contributions have been made to the study of ancient topography, especially in Cyprus and Arcadia. Light has been thrown on many problems in the development of ancient art. One student of the School has performed the difficult task of cleaning and sorting the fragments of bronze found in the course of the excavations on the Acropolis. These bronzes have yielded inscriptions, reliefs, and decorative designs, many in a previously unknown style, and all of great moment for the history of Greek art. Another student has discovered new fragments of one of the most beautiful pieces of relief sculpture in existence—the balustrade which once crowned the bastion on which stood the Temple of Wingless Victory. Nor has the work of the School been confined to the classical period of Greece. Entering upon what was practically a new field, two of its students have thoroughly studied and illustrated the remains of Byzantine art in the churches scattered throughout the land from Attica to Ambracia, from the Peloponnesus to Salonica. The School, indeed, represents the permanent place of our country in a field of research which other nations also are cultivating in generous emulation; and in which, for a long period, Frenchmen, under the guidance of the Institut de France, were sole and supreme.

Sir Frederic Leighton, P.R.A., in moving a resolution pledging the meeting to use every effort to place the School upon a sound financial basis, said that, though the slavish reproduction of ancient models might be pernicious, the study of the supreme masters of the past was precious to us, and in none were strength, and sweetness, and subtlety—what was simple and what was sublime—combined in such admirable proportions as in the works of the Greeks.

Mr. Edwin Egerton, British Minister at Athens, bore witness as a resident at Athens to the usefulness of the School, and to the good work unobtrusively carried out by the Director and students; but, unfortunately, from want of means, it could do little in the way of exploration, and in this respect it was not flattering to our national pride to mark the contrast with the activity of the foreign Schools. The French School had a regular income of £3,120 a year, apart from special grants. Lately the French Chamber had voted extra grants of £20,000, £3,000, and £6,000 successively, making a total of £29,000. M. Homolle was in hopes that art-studentships might be founded in connection with the French School. The income of the German School was roughly £2,400, besides various special grants. Imperial funds had subsidised on a large scale the excavation of Troy last year. The Germans had lately undertaken with State subsidy extensive work at Ephesus, as they had formerly done at Pergamus and Magnesia. On the work at Olympia they had spent £40,000 with magnificent results. The income of the American School reached £2,000 per annum.

From the financial statement of the British School, it appears that last year the income barely reached £500, and in order to make up the salary of the Director to £500 the Committee were obliged to withhold the two studentships of £50 each, which in past years had been given, one to Oxford and one to Cambridge. To equip the School efficiently for educational purposes requires an income of £1,050 per annum. It has been entirely beyond their power to enter into competition with the other Schools. The sum required to bring England even approximately into line cannot be estimated, but ample employment could be found for an income of at least £1,500 a year, or a capital sum of £30,000.

The Prince of Wales said that before leaving office Sir William Harcourt, as Chancellor of the Exchequer, had taken steps to use some portion of the public funds devoted to the encouragement of scientific investigation for the support of the School, and he understood the present Ministry were willing to confirm the action of their predecessors. Several of the Oxford and Cambridge Colleges had voted grants, and the Public Schools were moving in the matter; and he trusted the generosity of private individuals would not be appealed to in vain.

The Prince of Wales in the course of his address referred in eulogistic terms to the services rendered to the School by its Hon. Architect and first Director, Mr. Penrose.

Recent Explorations at Jerusalem.

The issue, this month, of the Palestine Exploration Fund *Quarterly Statement* has suggested to Mr. William Simpson [*H.A.*] the following interesting description of work recently carried out under the auspices of the Fund:—

A Firman to carry on explorations at Jerusalem was at last, after long delays, procured for the Palestine Exploration Fund from the Sultan, and last season Dr. F. J. Bliss commenced work. Dr. Bliss had previously explored for the Fund—and that, too, in a very able manner—a mound in Judea known as Tel el Hesi, which is now supposed to have been the site of the ancient Lachish.* For some years past a considerable amount of building has been going on outside the walls of Jerusalem, and the railway which now connects the city with Jaffa may give an impulse to traffic. As this may lead still more to the covering of the ground with houses, it became desirable to have some points connected with the topography of the Holy City cleared up. The present wall of the city on the south is known to be a long way within that of the old wall, and as it is an important point in relation to our topographical knowledge to know the line of the old one, Dr. Bliss was directed to trace it out. Some years ago Mr. Maudslay had uncovered a bit of this wall at the English Burial-ground, near the Cenaculum, and Dr. Bliss began his operations there. Last season he traced the wall eastward from the burial-ground, and found portions of it still existing, with the rock scarped in some places to a considerable depth beneath. None of the stones are of the large dimensions of those in the Haram wall, but most of them are draughted. On the east of the burial-ground the plan of the wall shows a curious projection in it, as if an outlying tower connected with the wall had stood here. The remains of a gate exist at this point; an aqueduct, drains, and cisterns have also been come upon. This season, owing to crops being on the ground, and difficulties in arranging with the proprietors, Dr. Bliss, inferring the line of the wall from his previous excavations, came on it again near the Pool of Siloam. The work already accomplished at this point seems to show that the wall here turns to the northward, inclosing the Pool of Siloam, from which it may be supposed to run along the western side of the Valley of Jehoshaphat and end by a junction with the wall discovered over a quarter of a century ago by Captain (now Sir Charles) Warren, thus enclosing Ophel on the

east, and joining the Haram wall at its south-east corner. At the corner where the wall turns from the Hinnom Valley and runs up towards the Pool of Siloam the remains of an old gateway have been discovered. Two door-sills, at least, one above the other, have been found *in situ*, showing a rise at some points in the level of the roadway. The date of this portion of the wall has been already made fairly certain by Sir Charles Wilson, who points out that according to Josephus (*Wars*, v. 9, § 4) Siloam was outside the walls; while Antoninus, whose book is published in the *Palestine Pilgrim's Texts*, who wrote in 570 A.D., states that "the fountain of Siloa is at the present day within the walls of the city, because the Empress Eudocia herself added these walls to the city."† The death of this Empress is given about 455 or 460, from which the date of the wall may be pretty nearly guessed. The restoration of the walls by Eudocia is also alluded to by Evagrius in his *Ecclesiastical History*.‡ To confirm this it will now be necessary to seek for the inner wall above the Pool of Siloam, which, according to Josephus, existed before the one which has just been brought to light. As this exploring operation is of a very important character, and ought to be carried on with every care and attention to details, the Fund early this year thought it necessary to send out an assistant to Dr. Bliss. A selection was made of Mr. Archibald C. Dickie [*A.*], partly because of his architectural knowledge, which would be valuable, but mainly because of his ability in making drawings of whatever might chance to be discovered. In this the results have already justified the appointment, as the pages of the *Quarterly Statement*—the regular publication of the doings of the Fund—bear evidence. The great heat of this summer has, unfortunately, quite prostrated Dr. Bliss for a time, and Mr. Dickie has had to carry on the explorations alone. The last Report of what has been done, and which appears in the July issue of the *Quarterly Statement*, is by Mr. Dickie, and is accompanied with map, plans, and drawings of the masonry, including those of the gate. As it is highly essential for a correct knowledge of the topography of the Holy City that this ancient wall should be fully explored, it may be stated that the means at the command of the Palestine Exploration Fund are far from being ample. It will be a pity if the work has to be stopped, or even limited in any way.

Plans and Models of Dairies Competition.

A feature of interest to architects in connection with this year's Dairy Show at the Agricultural Hall, Islington, is the series of competitions in Plans and Models of Dairies which has been arranged by the Council of the British Dairy

* Josh. x. 3, 5; 2 Kings xviii. 11, 17.

† Antoninus Martyr, p. 21.

‡ i. p. 22.

Farmers' Association, under whose auspices the Show is held. The sum of £400 has been generously placed at the disposal of the Association for prizes by Sir James Blyth, Bart. Mr. W. D. Caröe [F.] will act as one of the Committee of Judges, whose names are to be shortly announced. The Show will be held from the 8th to the 11th October inclusive, and prizes for plans and models in the various classes will be awarded as follows:—

Class 81.—Plan for a Dairy, adapted for the manufacture of both Butter and Cheese, and capable of dealing with the milk of not more than 25 Cows:—First Prize £25, Second Prize £15, Third Prize £10.

Class 82.—Plan for a Dairy, adapted for the manufacture of both Butter and Cheese, and capable of dealing with the milk of not more than 50 Cows:—First Prize £25, Second Prize £15, Third Prize £10.

Class 83.—Model of a Permanent Dairy, adapted for the manufacture of both Butter and Cheese, and capable of dealing with the milk of not more than 10 Cows:—First Prize £60, Second Prize £30, Third Prize £10.

Class 84.—Model of a Permanent Dairy, adapted for the manufacture of both Butter and Cheese, and capable of dealing with the milk of from 10 to 50 Cows:—First Prize £60, Second Prize £30, Third Prize £10.

Class 85.—Model of a Portable Dairy, adapted for the manufacture of Butter, capable of being readily moved from place to place, to deal with the milk of not more than 20 cows:—First Prize £60, Second Prize £30, Third Prize £10.

The Council of the Association issue the following instructions to competitors:—

1.—The Judges will be instructed to award the Prizes only for those Plans or Models which are considered of sufficient merit, and which comply with the conditions and instructions.

2.—Plans and Models must not bear any motto, device, or distinguishing mark, but must be accompanied by a sealed envelope containing the name and address of the Competitor, which will not be opened until after the awards are made. The Plans and Models will be numbered by the Committee in the order of receipt.

3.—Plans must be drawn to a scale of $\frac{3}{4}$ inch to a foot, and be accompanied by details to a scale of 1 inch to a foot. Models must be made to a scale of 2 inches to a foot, and be accompanied by a plan of the floor or floors.

4.—All Plans and Models must be accompanied by a brief descriptive specification, having special reference to materials and construction. The variety or varieties of Cheese intended to be made in the Permanent Dairies must be stated; and, in the case of Models of Dairies, specimens of the proposed walling and roofing must be submitted, each specimen not to exceed 2 feet square. The plans in Classes 81 and 82 must be on *Imperial* paper, mounted on cardboard, and none are to be framed or glazed.

5.—Prize Winners must, before removing their exhibits, give a written undertaking, in the prescribed form, that the same shall, if and when required, be forthcoming for the purpose of exhibition at the Dairy Conference and the Dairy Show of 1896, held under the auspices of the British Dairy Farmers' Association, who reserve the right of illustrating the Prize Plans and Models in the *Journal* of the Association or otherwise.

6.—The Judges will pay special regard to the following points:—(a) Equable temperature; (b) perfect ventilation; (c) good drainage; (d) modern sanitation; (e) facilities for expeditious working; (f) cleanliness; (g) durability; (h) cheapness in construction—this point being of primary importance.

7.—Entries must be made on the official form, and sent, with a fee of 10s. for each entry, in time to reach the Secretary, Mr. William C. Young, at 12 Hanover Square,

London, W., not later than Monday, 9th September. The Plans must be delivered, carriage paid, at 12 Hanover Square, London, W., by Saturday, September 28; and the Models must be delivered, carriage paid, at the Royal Agricultural Hall, Islington, London, N., not later than 4 p.m. on Saturday, 5th October, where they will be exhibited during the Dairy Show (October 8, 9, 10, and 11).

8.—The General Rules of the Dairy Show will apply to this Competition.

The late Thomas Chatfield Clarke [F.].

Mr. Chatfield Clarke, whose death occurred on the 28th ult., was born at Newport, in the Isle of Wight, in the year 1829. He was educated at home by a private tutor, and afterwards came to London, and was articled to the late Mr. Richard Tress, an architect and surveyor in the City. He commenced practice on his own account in 1855. Among the more important buildings carried out by him may be mentioned the London and Lancashire Life Insurance Company Head Offices, the Royal Bank of Scotland, the *Daily News* Offices, the Bishopsgate School for Girls, several blocks on the Duke of Westminster's estate, the schools of the Mercers' Company at Barnard's Inn, the Church of St. James, Gunnersbury; Essex and Unity Churches, and several chapels. As a school architect Mr. Clarke was well known. In addition to those already mentioned, he built the Mary Datchelor School, now taken over by the Clothworkers' Company; the new Science wing of the Cowper Street Schools, and most of the schools of the Hornsey School Board. He was the architect of several large blocks of offices in all parts of the City, and of wharves and warehouses in the East End. He was largely instrumental in the erection of model dwellings for the poor. He was for many years Surveyor to the Fishmongers' Company, to the Cordwainers' Company, and to Dr. Williams's Charity Estate. Mr. Chatfield Clarke became an Associate of the Institute in 1855 and a Fellow in 1862, and was one of the few remaining Life Members. He served on the Council from 1872 to 1874. He was one of the founders of the Surveyors' Institution, which first started in 1868, acting as Vice-President in 1888, and President in 1894; and he was appointed their first representative on the new Tribunal of Appeal created by the London Building Act 1894.

The late August Reichensperger [Hon. Corr. M.].

Dr. Reichensperger, who died at Cologne on the 16th inst., had been an Hon. Corresponding Member of the Institute since 1865. He was born at Coblenz on the 22nd March 1808, and after studying law at Bonn, Heidelberg, and Berlin he held various legal appointments until his retirement in 1875. He entered the Frankfort Parliament in 1848, and two years later was elected a member of the Lower House of the Prussian Diet, where, in conjunction with his brother, he formed and led the party known as the "Centre." In

1871 he received a mandate for the Imperial Diet, which he held until 1884. Reichensperger was possessed of great artistic abilities, and was devotedly attached to the Gothic style of architecture. The restoration of Cologne Cathedral was due in no small measure to his exertions, and at an early period of his career he was appointed one of the judges in the competition for a cathedral at Lille, in France. He was a warm admirer of the Institute, of which and its work he gave a long and appreciative description in the *Zeitschrift für christliche Kunst* a few years ago. Several pamphlets of his on architectural and æsthetical subjects are in the Library.

Re-appointment of a Competitions Committee.

In view of the difficulties and misunderstandings which continue to arise in the matter of Architectural Competitions, the Council have appointed a Special Committee consisting of the Past Presidents, Messrs. Charles Barry, F.S.A., Alfred Waterhouse, R.A., and J. Macvicar Anderson; of the Past Vice-Presidents, Mr. Henry Currey and Sir Arthur Blomfield, A.R.A.; of the Presidents for the time being of the Architectural Association (London), the Birmingham Association, the Liverpool Society, and the Manchester Society; with Messrs. James Brooks, Cole A. Adams, Edward W. Mountford, and Rowland Plumbe, *Fellows*; and Mr. G. Richards Julian, *Associate*. All these gentlemen have consented to act, and the Committee will be called together at an early opportunity.

The Schedule of Practice and Charges.

The Council desire to make known that the Practice Standing Committee of the Institute propose to undertake the re-consideration of the Schedule of Professional Practice and Charges of Architects, with a view to its revision if thought advisable; and that the Committee are prepared to receive from members of the Institute generally any suggestions for alterations or modifications of the several clauses, to which they will give careful attention. Such suggestions should be addressed to the Hon. Secretaries of the Practice Standing Committee at the Office of the Institute.

"The Building of Towns."

Monsieur Charles Buls [*Hon. Corr. M.*], the Burgomaster of Brussels, has recently translated into French a report, presented by Herr Stübben to the International Congress of Engineers held at Chicago in 1893, containing Rules, practical and æsthetic, to be followed in the elaboration of plans of cities and towns. Herr Stübben, who, it may be remembered, is the Vice-President of the Architects' and Engineers' Verein for Rhenish Prussia and Westphalia, headed an excursion of German architects and engineers to England last May; and he has since sent to the Institute Library two excellent Papers: one on the Sanitation of Italian Cities, and the other on the Building of Towns in

the past and at present; both of which are reviewed, on a subsequent page, with taste, judgment, and knowledge by Miss Ethel Charles, a Probationer of the Institute. No one is better able, from the vast opportunities of inquiry he has enjoyed, to treat of the management and building of towns than Herr Stübben, and the French translation of his original report to the Chicago Congress, by M. Buls, facilitates the preparation of a review of it which will appear in due course.

REVIEWS. XXIX.

(81.)

ARCHITECTURE FOR THE PUBLIC.

Architecture for General Readers: a Short Treatise on the Principles and Motives of Architectural Design. With a Historical Sketch. By H. Heathcote Statham, F.R.I.B.A., Editor of "The Builder." With Illustrations drawn by the Author. 8s. Lond. 1895. Price 12s. [Messrs. Chapman & Hall, 11 Henrietta Street, Covent Garden.]

The object of Mr. Statham's book, as described in his own language, is "to supply, in a condensed form, such an outline of the principles, the practice, and the historical development of the art of Architecture as may be acceptable to those who, taking an intelligent interest in the subject, have not time or inclination to study more technical and detailed treatises." The aim that the writer thus set before himself he has carried out in a volume characterised by lucid exposition, and by a practical common-sense method of dealing with architectural problems, which should make it widely appreciated by the general readers for whom it is primarily intended. At the same time, the book is by no means a mere "popular" treatise, but deals with architecture in the spirit of an architect, and it contains many discussions into which professional readers will throw themselves with interest. The following is a characteristic passage from the chapter on "Architecture in relation to Cities and Landscape," in which we may note that the author shows a correct judgment in his constant references to the compositions of Turner. He is speaking of Gothic in town and country (p. 185):—

Gothic architecture of the later period is the architecture of town rather than of country; its multitudinous detail, which in a city supplies an element of richness and variety of detail, in the country only seems attempting to compete with the infinite detail of nature; and its varied skyline does not present sufficient contrast with the equally varied skyline or silhouette presented by trees. The early Cistercian monastery churches, nearly always placed in wooded valleys, were of a broad and simple style of architecture with little decorative detail, and their expression of repose, and the broad simplicity of their architectural design, harmonise admirably with their situation. Such Gothic as Henry VII.'s Chapel, on the other hand, is essentially city architecture. So also are the French cathedrals of the middle Gothic period, with their forest of stone scaffolding in the shape of flying buttresses; in an open country they would be intrusive and pretentious; in a city,

with houses piled up all round their base, they seem the natural expression of the crowded and intricate life of the city. Our simpler English Gothic has in many of its examples an expression of repose and reserve which fits it for the very different position which most English cathedrals occupy, in the midst of an enclosed lawn or "close."

Mr. Statham's work consists of two parts, one bearing the title of the book as a whole, and the other designated an "Historical Sketch." The first part is the larger and more important of the two. It is original in plan, and contains the expression of the author's personal views, while the narrative part proceeds on more conventional lines, and provides the reader with information rather than with stimulus to reflection. On this account one wonders to find the author making a half-apology in his Preface for the comparatively brief space devoted to the Historical Sketch when measured against the "theoretical considerations." To most readers it is these last that will constitute the real value of the book. For our own part we would willingly have had them greatly extended, even at the cost of a surrender of the more strictly historical section. The history of architectural styles has often been sketched, while we do not remember to have seen, in any language, so clear and well-reasoned an exposition of the principles of architectural effect as that contained in the first part of Mr. Statham's book. The explanations he gives, such as that on "the philosophy of 'elevations, plans, and sections,'" and on "working drawings," are of a kind particularly welcome to the general reader, who may never have had the opportunity of hearing these technical matters expounded by a professional architect. The discussions into which he enters, such as those on the importance of mouldings, on "planning," and on "architectural expression," belong to what we may call the essence of the art, and need especially to be brought home to the minds of the uninitiated. The view of architecture as merely a framework for the display of carved and painted decoration, once propounded in an unfortunate hour by Mr. Ruskin, has still many adherents among those æsthetically inclined; and any exposition of the fundamental truths of the art that can reach the popular ear is serviceable and well-timed. There are, however, other questions of architectural theory as important as those Mr. Statham has dealt with, and there is ample room for an extension of the general discussions, which may perhaps find a place in a second edition of this interesting book.

In the case of what we may call the metaphysics of architectural theory the author touches on the relation between architecture and music, a theme he would naturally be expected to make his own. We miss, however, any notice of what is, after all, the fundamental element in the æsthetic effect of architectural monuments—the impression of grandeur and magnitude. There is no question

that architecture would lose a great part of its power over our minds if it were not that we derive a distinct æsthetic pleasure from the contemplation of what is vast. This is what writers on æsthetics call the impression of Sublimity; and though formal discussions on "the Sublime" may seem to us a little pedantic and old-fashioned, yet it is impossible to treat adequately of architecture without taking into account the grandeur as well as the beauty which belongs to noble buildings. A page or two on this theme would have made Mr. Statham's first chapter more complete.

Another point, which Mr. Statham has passed over somewhat too lightly, is the importance of conformity in architectural monuments to some recognised style. He insists rightly on the necessity for every work of architecture worthy the name possessing the general attribute of "style." Style he defines (p. 49) much as Gottfried Semper had defined it in "der Stil," as implying "a uniform system of construction, and the consistent expression of that construction in the design, combined with a consistency in regard to feeling, scale, and general treatment of the details, with suitability to their position." It is not enough, however, for a building to have "style" in the abstract—it must have a *style*. In other words, an architect cannot evolve a successful building out of his own head, even by following the laws of style as they are summarised in this book. He must conform in general aspect and detail to recognised standards. In the days when architecture was still a living art the buildings of each time and locality had a close family resemblance; and even in our own days, when, as Mr. Statham notices on his closing page, we are personal and eclectic in our tastes, the architect can only in a limited degree invent new forms and details for himself; he must conform more or less closely to standard models. That is to say, there is a limit to the successful expression of the artist's individuality in his work. Unfettered invention would be as bad as the slavish copying, against which Mr. Statham more than once inveighs. A building in which the mouldings had all original profiles, and the ornamented motives were devised for the occasion, would appear to us a piece of barbarism, worse in its way than the cold correctness, say, of modern Munich classicism. The reason of this would have been worth discussing. It is probable that the same principle is involved here as in the case of the use of natural forms in architectural ornament. On pages 152, 153 Mr. Statham gives some reasons why natural forms must be conventionalised to make them suitable as architectural details. The truth is that a certain restraint and severity is needed in architecture. Liveliness, individuality, the charm of Nature's variety and unexpectedness, valuable as they are in their own proper place, have very little

to do with this most dignified of the arts. Details which attract too much attention to themselves, either from their novelty or their imitative character, detract from the broad general effect of the whole mass, which is by far the most important matter. Hence the designer of details, such as mouldings, caps, and bases, must keep more or less within the recognised limits of the accepted styles, just as the carver should stiffen and make symmetrical the wayward and flowing forms of natural foliage.

There are other open questions of architectural theory which the author would probably have noticed had the space at his command allowed, and which he may find subsequent opportunities for discussing. In the matters with which he actually deals, there is more than one point we should like to have time to argue with him. In connection with "Theories of Proportion," Mr. Statham rightly rejects the notion of Viollet-Le-Duc and others that Gothic buildings were designed on a basis of imaginary geometrical figures, yet he still holds that the Greeks designed on "some definite geometrical system of regulating the sizes of the different parts." For our own part we think that the case was precisely the same with Greek as with Gothic builders. The men who really created and matured the styles worked, as all true artists have worked, by tact and judgment. Later on, when the life had died out of the styles, came along the measurers, and finding that the different parts of standard buildings were, on the average, more or less commensurable, they made out a theory of absolute commensurability, which passed into the works of technical writers of the calibre of Vitruvius. On this question, as on others bearing on classical architecture, the book of Professor Durm, *Die Baukunst der Griechen*—a work not so well known in this country as it deserves to be—has to be reckoned with. Professor Durm denies the commensurability of the parts of Greek buildings, scouts the whole theory of the "curvature of the horizontals" as part of a reasoned scheme, and shows that Vitruvius's proportions and measurements hardly ever agree with the actual monuments!

We have said that the "Historical Sketch" seems to us of less value and interest than the more theoretical portions of Mr. Statham's work. The "Sketch" is accurate and up-to-date, in so far as it agrees with the conclusions of the standard authorities for the various recognised periods; it does not, however, go behind these periods and attempt any investigation of those obscure, but most important, intermediate epochs when the different styles were, so to say, in formation. For example, on page 241 the author turns at once from classical Greek to Roman architecture, without even a glance at that later Greek or Hellenistic period, when some of the most magnificent cities the

world has ever seen—Alexandria, Antioch, Seleukeia—were built and adorned, and when there came about a sort of fusion between Greek and Oriental traditions, from which, in time, Roman Imperial architecture was to grow. We are glad to see that the author fully values the dome as an architectural feature, but he probably under-estimates its historical importance as a traditional feature in the old architecture of the East. M. Choisy, in his *Art de Bâtir chez les Byzantins*, attempts to bring this old Oriental tradition into connection with the later development of dome construction at Byzantium, and one would have been glad of some notice of this theory.

Similarly, in the case of Christian architecture, on page 280 Mr. Statham speaks of the "process" of transformation from the early Romanesque "architecture of the fifth century to the complete" Gothic of the early thirteenth," but really only deals in the text with the latter part of this long period—the transition from the developed round-arched styles of the eleventh and twelfth centuries to the pointed style. The more obscure earlier period, when the Romanesque styles were themselves being evolved from Roman and early Christian forms, is, however, especially worthy of study. It is one of the most important epochs in the whole of architectural history; yet how little do we really, at present, know about the evolution of the tower as a feature in architectural composition, or about the development of the cruciform ground plan! In connection with the latter point we notice that Mr. Statham holds to the old view, universal a few years ago, that the evolution had its starting-point in the transverse space or embryo transepts across the altar end of early Christian basilicas, such as old St. Peter's at Rome. As a matter of fact, this transverse space only occurs in the earlier Roman basilicas, especially those of great size like St. Peter's, St. Paul's, or St. John Lateran, while it almost entirely dies out at Rome at a later period, and in the basilicas of Ravenna it never occurs at all. It seems probable that the normal ground-plan of the mediæval church was derived rather from the cruciform buildings erected, at first for sepulchral purposes, as early as the time of Constantine, and much favoured at Milan and its neighbourhood at the end of the fourth century. Many investigators are now looking to North Italy as the real scene of the development of mediæval from early Christian architecture.

Archæological considerations such as these may be considered by Mr. Statham beyond the scope of his treatise; and, indeed, he shows no disposition to investigate minutely problems of origin. A chapter on Mouldings seems hardly complete without a notice of the question how such an un-stone-like feature came to play such an important part in the effect of stone masonry. Just as rustication in its various forms is an essentially

stone feature, so mouldings, with their long level lines, would seem to belong naturally not to stone, but to timber construction. How easily a moulding is worked in wood! It was probably in the wooden prototypes of the Greek temples that mouldings were first evolved and their effectiveness demonstrated. In connection with ornament, questions of origin can hardly be neglected. Mr. Statham instances on page 164 the ox-head (or skull), with wreaths and pateræ, which appears on Roman friezes, and which, he says, "symbolised" the sacrifices which went on within the temple." The real fact is that the carved ornament is just a copy of actual skulls and garlands which used to be hung for decoration on altars, at which the beasts to which they belonged had been slain. The "horns of the altar" spoken of in the Old Testament were once the real horns of sacrificed creatures. So, too, the foliage ornament carved on capitals is just a copy of actual foliage wreathed for festal purposes round the heads of the posts of a porch, and this will explain the circumstance, at which the author expresses surprise, that carved foliage is used on classical capitals, and not on bases.

Certain points in the "Historical Sketch" may have a word. A distinction should always be drawn between the architecture of Old Babylon and the comparatively late work found in Assyria. The date of Khorsabad (page 216) is nothing like 1300 B.C. It was erected by Sargon II., the conqueror of Samaria, a little before the year 700. There is really no direct evidence connecting Greek architecture with Egypt, and if the Greeks had borrowed anything thence would they have failed to annex some of the more striking and prevalent Egyptian features, such as the Papyrus columns or the cornice? The oldest Doric temple of which we know anything is the Heræum at Olympia, and here the proofs of wooden origin for the columns, as well as the other features, are convincing.

On the whole we may congratulate Mr. Statham on an interesting and useful work, to which we wish, in the interests of artistic teaching, every possible success. It is so seldom that an artist will take the trouble to write about his art in a connected and philosophical manner, as Mr. Statham has done, that we may be pardoned for grudging the space he has given to architectural history, with which the non-professional can fairly well deal. The two chapters on Trabeated and Arcuated Architecture might have been extended so as to embrace a notice of the main historical phases of the two great styles, and the history proper might have formed the subject of a separate essay, or been left to other hands. Impatience of theory is a constantly appearing foible of the professional mind, and one is thankful to a professional writer for giving to theory the intention and importance it deserves.

It only remains to say that the book is admirably illustrated. The cuts in the text are clear, as well as aptly chosen, but some of the "ink" photos on the separate plates are a little faint.
Edinburgh. G. BALDWIN BROWN.

(82.)

TWO RECENT PAMPHLETS.

Gesundheitliche Verbesserungen baulicher Art in italienischen Städten. Von J. Stübben, Kgl. Bau Rath in Köln. Mit 17 Abbildungen. Roy. 8o. Bonn, 1895. [Emil Strauss, Bonn.]
Der Bau der Städte in Geschichte und Gegenwart. Von J. Stübben. Roy. 8o. Berlin, 1895. [Wilhelm Ernst & Sohn, Berlin.]

The first of the two pamphlets whose titles are given above contains a record of the greatest sanitary undertakings of the century. Most of the European nations, with England at their head, have for some time past been gradually improving the sanitary condition of their towns; but none have set to work with the same energy or attained such surprising results as Italy.

Herr Stübben recognises the extent of his subject and has dealt with it in a concise and practical way. He has chosen four typical and striking examples—Rome, Naples, Palermo, and Florence—and has devoted a separate section to each, describing the alterations and additions made to the old towns, their water-supplies, and systems of drainage. These changes were peculiarly difficult to effect in Rome, where the laws regarding the pulling down of old buildings are so strict. Nevertheless, about thirty important streets have been cut through the town, and many squares and gardens provided and planted to afford the breathing space and fresh air essential to so crowded a city as Rome.

The most important roadway, as far as health is concerned, is the embankment of the Tiber, which has been planned for centuries and at last has been executed. It is true that in its present unfinished condition the embankment is an eyesore, and many picturesque buildings had to be sacrificed to make way for it, which called forth much indignant protest from hysterical writers; but picturesqueness had to give way to considerations of health, and the yearly flooding of the lower parts of the city was a source of great danger and inconvenience to the poorer inhabitants. The drainage of the town is much facilitated by the excellent water-supply that Rome has always possessed. Frontinus, in the first century, counted nine aqueducts, and five more were added later on. These fell into disrepair in the Middle Ages, but several of them have been reconstructed, so that Rome is supplied with 232,000 cm. of water daily. By means of a carefully arranged system of automatic flushing, the huge caverns, constructed well-nigh 2,500 years ago, which would nowadays be considered most faulty both

in shape and construction, have been converted into a sewerage system which, though still far from perfect, may compare favourably with the sewers round the House of Commons about five years ago, or with modern horrors not yet twenty years old. Five main sewers collect the soil and waste water from the different quarters of the city and discharge into the Tiber some miles below Rome. This was all the more necessary because, while the river was high, the drains, so far from emptying themselves, had their contents forced backwards, and flooded the open ground round the Pantheon, forming small lakes in the Forum and other low-lying sites.

"See Naples and die" used to possess a double meaning up to a very short time ago; for words fail to describe the state of filth the town had reached when, in 1884, cholera struck a decisive blow, and by carrying off 7,000 souls forced the Government to take rapid and stringent measures towards the cleansing of the town. The poorer classes herded together in cellars beneath the ground level, where neither light nor air penetrated; sewage and refuse of every description lay stagnant in the streets, which varied in width from 5 to 15 feet; the few drains there were were square, leaked freely, ran just beneath the surface of the ground, and emptied themselves into the harbour, so that the town was one gigantic cesspool. The Government granted four millions sterling for the most pressing needs of the town, of which one million was spent on an elaborate system of drainage, drawn up by Signor Gaetano Bruno. In nearly every case the collectors are divided into an upper compartment for surface drainage, and a lower one for soil water. The former are emptied into the harbour, while the soil is carried in a main intercepting sewer about ten miles out of the town to Cumæ. Nearly the whole of the old quarter had to be pulled down in order to raise the ground level 13 feet, so as to afford sufficient fall for the drains. The houses for the poorer classes were re-erected chiefly from the designs of Signor P. P. Quaglia, and are more sanitary than, if not so picturesque as, those they replace. The water-supply was undertaken by an English company, and ensures daily 300 litres per head, as against 30 in former years. The temperature of the water, the old imperial *Acqua Claudia* and spring water from the *Serino Valley*, varies from 10 to 11 C., and is exceedingly pure, both chemically and bacteriologically.

Palermo, with its dirt and its picturesqueness, was very like Naples, and had to be treated in a very similar manner. The improvements began here also with providing a water-supply, the more necessary because for five months of the year no rain falls in Palermo. A private company undertook to bring the water from a distance of fifty miles, at a cost of £230,000 sterling. The scheme for the drainage was prepared by Signor

Luigi Castiglia, and will have cost when completed £290,000 sterling. In this case, too, the ground level round the harbour had to be raised for the drains, which necessitated the rebuilding of the poorer quarters.

Florence is by no means all it should be, either from an artistic or a sanitary point of view. When it was proposed to make it the capital of the country, vast building schemes were put in hand, which were abandoned and left in a disorderly condition when the Government was transferred to Rome. The centre of the town, the Ghetto, was condemned by the authorities as a nest of disease, but antiquaries started a controversy, and so many concessions were eventually made that only half-and-half measures were undertaken towards cleansing the town.

Several plans are scattered through the pamphlet, giving the drainage of the four typical towns, and showing the changes which have been effected to render them more healthy.

The second pamphlet under notice consists of a Paper on the building of towns past and present read by Herr Stübgen before the Berlin Society of Architects on the occasion of the Schinkel festival. He began with a description of Greek towns, which were the first to be planned on any system, and consequently the first worthy of the name of towns. In the earliest times, when war was the order of the day, the towns were built on rocky heights, in commanding positions; and the formation of the ground settled the plan. Later on, in the eighth century B.C., when peace was universal and commerce flourished, the people moved down to the water-side and built round their harbours, keeping their more important edifices on neighbouring heights, *e.g.* Athens. In the time of Pericles the artistic development took place. Careful plans were drawn up, due regard being paid to the relative positions of sacred, public, and private buildings, *e.g.* Piræus, planned by Hippodamus of Milus, which, according to Hirschfeld's restored plan, may compare with any modern town. Also Agora and Cnidos, which lie between two harbours and have at their rear a small eminence crowned with a temple.

The typical example of the period of decline is Alexandria, planned by Democritus, where all attempt at artistic feeling is abandoned, and merely straight lines are adhered to. The Romans were famous at all times for their sites. They took into consideration traffic, safety, health, water-supply, and drainage. Pompeii is a charming example of an irregular town built at different times; Turin is unpleasantly regular, having been planned and built all at one time. In northern countries towns went through the same stages as in Greece. In the Middle Ages, for reasons of security, they clustered round a convent, a church,

a fortress, and gradually spread over the country as the population quieted down.

It is the sudden return of people from the country to the towns that has of late been exercising the ingenuity of architects and engineers. In the last fifty years the town population has increased from a quarter to half of the total population of the country. Dwelling-houses for the new-comers were not the only difficulty to be met with. Schools, churches, hospitals, baths, theatres, public and commercial buildings, roads, water, and drainage all had to be supplied, and that without delay.

It is this problem that Herr Stübgen says is the greatest problem of the day: to make a harmonious whole of these modern requirements and meet the demands of health, beauty, and convenience. No hard-and-fast rules can be laid down for the planning of a town, for all depends on the nature of its site and surroundings, and upon the character of the town itself. It is not a question of whether the streets should be straight or crooked; for on the one side Breslau and Krakow prove how picturesque a symmetrical town may be, while Turin shows the reverse of the medalion. Nürnberg and Siena are famous for their beautiful irregularity, which in Cassel and Aix-la-Chapelle amounts to disorder. All that can be done is to suggest a few points which are essential to every good plan—*e.g.* the change from straight to crooked streets should be gradual; the length of a straight street should be limited to about thirty times its width; excessive width in streets or squares should be avoided, and the planting of trees and gardens within the town should be encouraged. The ancients, no doubt, planned cleverly, but we ought not to steal from the past to deceive the future, and we must ever bear in mind what Monsieur Ch. Buisson truly says: "Que l'architecture soit le reflet vivant de la civilisation au milieu de laquelle elle se développe."

ETHEL CHARLES.

(83.)

ARCHÆOLOGICAL SURVEY OF INDIA.

Annual Progress Report of the Archaeological Survey Circle, North-Western Provinces and Oudh, for the year ending 30th June 1894.

This *Report*, which has been received from the India Office, the principal part of it being by Dr. Führer, bears a title that is no doubt officially correct, but the words would not lead anyone to suppose that the greater part deals with the archaeology of Burma. Dr. Führer, in pursuance of instructions from the Government of India, left Lucknow on the 26th October 1893 "... on an extended tour through Lower and Upper Burma, in order to collect and verify information required for the preparation of descriptive lists of the monumental antiquities and inscriptions of this interesting country, which offers

"comparatively virgin soil for archæological and epigraphical studies."

Some of the points dealt with by Dr. Führer will be found in notices of previous *Reports* which appeared in this JOURNAL.* He produces what appears to be new names for the Rangûn pagoda; at present it is known as the Shwê Dagôn Payâ, or Dagôn Sandôshin Cheti; but on the authority of the *Mahâjâzawin*, "the great royal chronicles" of Burma, it was at first called Késadhâtuchetiya, or Digumpacheti. This last means that it was the Cheti, or Chaitya, of Digumpa, as the city had then the name of Digumpānagara. These names are probably correct enough, but the book from which they are derived gives the usual legendary account of the origin of the pagoda, placing the date of its first erection as early as B.C. 588, during the lifetime of Gotama Buddha, and including the mythical story of Taphussa and Bhallika, the two merchants who are said to have received eight hairs from Buddha himself, and which are supposed to be enshrined as relics in the pagoda. This tale, I showed in a former article, is told about the origin of other stûpas, and of one as far removed from Burma as Balkh in Central Asia. Dr. Führer states that the first trustworthy information about the Rangûn pagoda is as late as A.D. 1459-69, when the Talaing Queen Shinsobû raised the height of the structure to 129 feet, made terraces on the hill, and paved the top-most one with stone. Other sovereigns made additions. The object they had in view was to increase the splendour of the temple, so that it might rival the Shwêmôdô pagoda at Pegu, and it was as late as 1768 that, from additions and restorations, it was raised to the present height of 321 feet. This implies that the original structure was encased, probably more than once, by the later additions—a process mentioned by Dr. Führer as having taken place with other pagodas in Burma, and which we know also occurred with similar monuments in India.

Dr. Führer's *Report* is not open, so far as architecture is concerned, to the criticisms that Dr. Forchhammer's communications about Burma were liable to. This results from a more intimate knowledge of the architecture of India, which it is well known influenced the architecture of Burma. Dr. Führer has traced this influence back to the Buddhist period, when Asoka is said to have sent two missionaries, Sona and Uttara, and he mentions the Kyaukkû Onhmin, one of the oldest of the ancient historical temples at Pagân, as the original type of the edifices at that place, called *Kālā Kyauṅg*, "the monasteries or schools of Western

* See *The R.I.B.A. Journal*, 24th November and 8th December 1892, for some account of the Shwê Dagôn at Rangûn, its relics and legend of Taphussa and Bhallika; and the same *Journal*, 28th November 1893, for the account of Sinbyûyin placing the new *ti*, or umbrella, on its summit.—W. S.

"foreigners"—apparently, he says, this meant "Indian Buddhists." Up to the tenth century the Buddhism of Burma was derived from North-Indian Buddhism, but after that the Southern Buddhist school from Ceylon was introduced, and has continued as the orthodox form of religion from that time. Two long Sanscrit inscriptions are announced as an important discovery at Pagán. The first is dated A.D. 481, and the second as A.D. 610. The latter, being in the North-Indian characters, is assumed as affording undoubted proof that Northern Buddhism reached Upper Burma from the Ganges when India was mainly Buddhist. This also means that an architectural influence came with it at that early period.

Dr. Führer also visited Ava, which he calls "Awa or Inwa," the capital previous to Mandalay; and Sagaing, situated on the opposite bank of the Irrawady from Ava, another of the old capitals of the country. The *Report* also includes a notice of Tagaung, or old Pagán, a still older capital, which, he says, "... hides under its *débris* the "oldest Indian settlement in the whole of Burma." In the *Mahāyāzīn* it is stated that Dhajarāja, a king of the Sakya race, settled at Manipūra about the middle of the sixth century B.C., and that Upper Pagán, or Tagaung, was conquered by him. In the ruins of this old capital terra-cotta tablets, bearing Sanscrit legends in Gupta characters, and a stone slab with an inscription written in the Gupta alphabet of the date A.D. 416, is now strong evidence of the connection with India at a very early date.

About eighteen miles south of Bhamo, on one of the lowest slopes of the Wambutaung hill, above the village of Saw Chaungbya, the *Report* mentions the existence of an old Chin cemetery containing five, more or less perfect, stone structures over some graves, resembling miniature stone cromlechs, with a big flat stone on the top. They are believed to be the tombs of great chieftains, and are very old. These monuments have a special interest in relation to the cromlechs and other rude stone monuments which exist in the Khassia hills, the distance between the two localities being, at a rough estimate, not much above 300 miles. Both are hill tribes, and this discovery suggests the strong probability that in the as yet unexplored hill country that separates the two many primitive remains will be found in the future.

The above only deals with a few of the subjects included in this interesting *Report*, and when the full details of it are published, we may expect that much new light will be thrown upon the archaeology and architecture of Burma.

The second part of the *Report* is by Mr. Edmund W. Smith, architectural surveyor, and contains an account of the details of progress made in preparing for publication the work that has already been surveyed. The only point in this part of it that

may be noticed is that the first volume of *The Moghul Architecture of Fatihpūr Sikrī* is completed, and, having been sent to the press, may be expected to appear now in a few months.

Mr. Smith gives a short and interesting description of the Chini-Ka-Rauza, an old tomb at Agra, which he says is not so well known as it should be. This is true enough; still, Fergusson mentions it in his letters, written as far back as 1834; * that was on his first visit to Agra. Keene also gives it due notice in his *Handbook to Agra*. As drawings and photographs of it are now to be published by the Archaeological Department it may have a chance of being better known in the future. Sikandra, Akbar's Tomb, is also in hand, and progressing forwards for publication. Mr. Smith adds a few notes on the details of this monument.

The only thing calculated to raise dissatisfaction in this *Report* is Mr. Smith's statement that, "according to present arrangements, only one "more camping season is to be devoted to archaeological researches in these provinces, and in "October 1895 the work is to stop altogether." This is very sad. It is a very small department, and it has all along done good work, and one would like to know why it is to be cut off in its prime. This requires that someone should ask a question about it in Parliament.

WM. SIMPSON.

NOTES, QUERIES, AND REPLIES.

Foundations for Buildings in Calcutta [pp. 428-438].

From HUGH LEONARD [H.A.]—

In a Paper by Mr. J. M. Moncrieff, published in the current volume of the *JOURNAL*, p. 431, reference was made to a report of mine on foundations for buildings in Calcutta, and extracts from it were given which are hardly intelligible to the general reader without information as to the circumstances under which the series of experiments mentioned were carried out. I think, therefore, that a few words of explanation may be of interest, at any rate to readers who know something of the difficulties of dealing with foundations in Calcutta, and, indeed, of most sites formed of comparatively recent alluvial deposits.

Anyone acquainted with Calcutta knows that a large proportion of the buildings in the town and neighbourhood are very badly cracked, especially those having some parts of the structure carried higher than other parts. While I had charge of the public works of Bengal it became necessary to erect a considerable number of important buildings, two of them, I may mention, designed by the present Secretary of the Institute when he was in Calcutta. The question then arose as to the best method of dealing with subsidence, and consequent cracking.

* See *The R.I.B.A. Journal*, 14th March 1889.

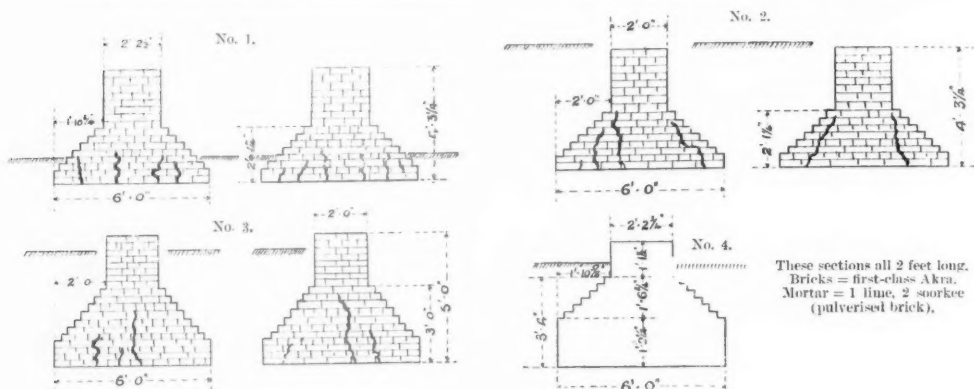
The site of the whole town of Calcutta is an alluvial deposit—part of the delta of the Ganges—especially that branch of it known as the river Hoogly. A section of the ground is somewhat of this nature :—

3 ft.	Rich soil.
4 ft. to 6 ft.	Compact blue sandy clay.
6 ft. to 8 ft.	Brown sandy clay, compact.
6 ft. to 8 ft.	Brown clay, with a good deal of sand and some water.
2 ft.	Peat, with roots and some trunks of trees.
	Sand and clay, wet and unstable.

11 ft. sank much more than those laid at a depth of 4 ft. to 8 ft. This was due to the bottom of the pit, when excavated to 11 ft., blowing up slightly before the load was put on it.

The account of the observations made is given in detail in *Engineering*, vol. xx. p. 103.

Having ascertained that the greatest load on the foundations that caused no perceptible sinking was 1 ton per square foot, and that the buildings to be erected required to have the foundations considerably spread out in order to get only this amount of pressure, it became desirable to ascertain the most economical shape to give the footings. With this object in view the experiments described by Mr. Moncrieff were carried out. For



MR. HUGH LEONARD'S EXPERIMENTS ON FULL-SIZE FOOTINGS.

No. 1, 19 days old, cracked at 1'018 ton per square foot. $f = 38$ lbs. per square inch.
 No. 2, 3 months 2 days old, cracked at $1\frac{1}{2}$ ton per square foot. $f = 63\frac{1}{2}$ lbs. per square inch.
 No. 3, 15 days old, cracked at $1\frac{1}{2}$ ton per square foot. $f = 36$ lbs. per square inch.
 No. 4, 3 months old, did not crack at 2 tons per square foot. $f = 29\frac{1}{2}$ lbs. per square inch without causing failure.

NOTE.—The two sketches under Nos. 1, 2, and 3 show opposite sides of the same footing in each case.

Foundations are generally laid on the blue or brown clay, some 5 ft. to 6 ft. below the ground surface, and it was clear that the cracks were due to the unequal sinking of the buildings when one part was raised higher than another. The question then presented itself, What weight could be put on the usual foundation soil without causing any perceptible sinking?

In order to settle this point a series of experiments were carried out. Blocks of masonry, measuring about 6 ft. area of base, were laid at depths of 2 ft. 6 in., 4 ft., 8 ft., and 11 ft. below the ordinary ground surface. These were loaded with weights of from 1 to 3 tons per square foot of area, and were kept under observation for three months, the levels being measured daily from a fixed point. The result showed that at any depth of from 4 ft. to 8 ft. below the surface there was no perceptible sinking with a load of 1 ton per square foot; there was a sinking of 2 in. to 3 in. with a load of 2 tons, and of 4 in. to 7 in. with a load of 3 tons. The blocks laid at a depth of

convenience of reference extracts from the Paper referred to are here given :—

The footings as constructed are shown on the drawing, together with the load per square foot at which they failed, or, rather, at which cracks were developed. The age of the brickwork at the time of the tests, the position of the cracks, and the values of f , the ultimate calculated stress, are also shown. The bricks were described as first-class Akra bricks, and the mortar was composed of one part of lime to two of soorkee. Soorkee is pulverised brick.

The ratio of the depth to the projection in the first experiment was 1'11; so that as the footing failed when the load on the ground was 1'018 ton per square foot, or nearly 16 lbs. per square inch, the calculated maximum tension, f , would be nearly 38 lbs. per square inch, the masonry being nineteen days old. In the second footing the brickwork cracked when the load was $1\frac{1}{2}$ ton per square foot on the ground, or 23½ lbs. per square inch, and the ratio of depth to projection being 1'05, f works out to 63½ lbs. per square inch, the masonry being three months two days old. Comparing these results we see the increase in strength due to the greater age of the second footing. In the third experiment the ratio of depth to projection was 1'5, and cracks were developed when the load on the ground was $1\frac{1}{2}$ ton per square foot, or nearly 27½ lbs. per square inch, and f

works out to about 36 lbs. per square inch maximum calculated tension, the masonry being fifteen days old. Comparing this with the first test, the increase in the strength of the footing due to increased depth is evident. The deeper footing, although having four days less age, carried nearly 72 per cent. more load per square foot, with very nearly the same maximum tensile stress per square inch. In the fourth experiment the ratio of depth to projection was 1.78 nearly, and a load on the ground of 2 tons per square foot, or a little over 31 lbs. per square inch, failed to crack the brickwork. This load would produce a maximum calculated tension of $29\frac{1}{2}$ lbs. per square inch nearly, the brickwork being three months old.

These experimental footings all rested upon soft alluvial soil, at the depths shown on the drawings; and from the results of the tests of the brickwork at fifteen days old and nineteen days old, which gave ultimate calculated tensile stresses of 36 lbs. and 38 lbs. per square inch respectively, I think we may safely use 18 lbs. as the safe stress per square inch, or working value of f , in ordinary brickwork footings, as the strength of the mortar keeps on increasing with an equivalent increase in the margin of safety, as evidenced by the much higher value of $63\frac{1}{2}$ lbs. per square inch maximum ultimate stress in the second experiment, and the calculated stress of $29\frac{1}{2}$ lbs. per square inch without failure in the fourth test, where the brickwork was in each case about three months old. There was no concrete bedding under these footings, as the object was to test the brickwork only. It will be noticed that, when the extreme toes of the footings were thin, cracks occurred immediately at the toes, pointing to the necessity for keeping them somewhat thicker than was the case in these particular experiments, in order to ensure that the extreme bricks are properly bonded into the body of the footing.

Attention may also be directed to the mode of failure generally, the main cracks occurring in the centre of the base or thereabouts. A failure of this nature under ordinary circumstances might easily escape notice, and lead to the false conclusion that the movement of the wall was caused by insufficient width of footing causing too great a load per square foot on the ground.

The estimation of the strength of footings in the manner indicated errs somewhat on the safe side, as the surrounding earth, if well rammed down at the sides, will tend to prevent any spreading by providing an abutting surface for the vertical face of the toe; but the calculation can necessarily take no notice of this, as its value is quite indeterminate. Again, the bond of the brickwork brings into play, in the case of a footing, a very considerable amount of friction between the surfaces of the bricks, and it is quite conceivable that even if no mortar were used at all in the lower courses, the calculation of transverse strength would assign a very appreciable value to f , the apparent tensile stress, and it was for these reasons that I suggested the advisability of referring to direct tests of footings themselves rather than to tests of simple beams uninfluenced by such conditions.

A concise explanation of the experiments above commented on may be given as follows: Lengths of wall, of about the thickness customary in Calcutta buildings, were built, with foundations spread out to about the thickness of the wall on each side, the depth of toe varying from 9 in. to 1 ft. 9 in., steps being 3 in. base to 3 in. of height. These lengths of wall were loaded with weights giving from 1 to 2 tons pressure per square foot on base area, and were tested for ages of work from 19 days to 3 months. The graphic results of the tests are shown in the illustrations on p. 594, the object of the trials being to ascertain under what condi-

tions, as to shape and age of work, the footings would fail, and how they would fail.

The result may be summarised thus: Foundations with projecting footings should not be heavily loaded before the mortar is fairly set; the footings which cracked badly when loaded after 19 days stood perfectly well with the same weight when 3 months old.

The toe of footing carrying a weight of 1 ton per square foot should be 18 in. deep, and the steps should not be flatter than 3 in. step and 3 in. rise; footings with toes less than 1 ft. 6 in. cracked badly when nineteen days old loaded with $1\frac{1}{2}$ ton to the square foot; but toes of 1 ft. 6 in. deep did not crack at all.

I may say that several large buildings were erected in Calcutta with foundations arranged on these data, and none of them have shown any sign of unequal subsidence; whilst others, built before the experiments were carried out, have subsided and cracked very badly.

The East End of Durham Cathedral [p. 546].

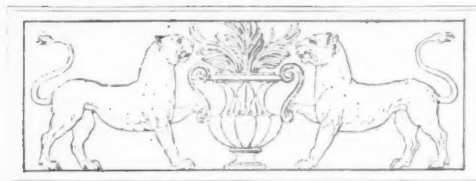
From WILLIAM WHITE, F.S.A.—

Happily Mr. John Bilson has given a very satisfactory explanation as to the point which I raised. In a newspaper report from a "Durham Correspondent" the "simple and most convincing argument" in favour of Carileph having been the builder of the remains discovered was said to be "that he would not have pulled down Aldhune's church until his own was finished for use"; a most inconsequential conclusion, taken, as it appeared to be, apart from all architectural considerations. Mr. Bilson now puts the matter upon a proper basis. I did not even know that these aisle apses had been suggested as being transeptal apses. Carileph must have the credit of care for his foundations.

The Schedule of Practice and Charges: Clause 16.

From M. P. MANNING [A.]—

Having regard to recent legal decisions on the subject of the ownership of drawings, may I venture to suggest the desirability of revising Clause 16 of the "Schedule of Professional Practice and Charges" to bring it more into accord with judicial opinion? The clause as it stands is directly at variance with the expressed opinion of such distinguished lawyers as Lords Bramwell, Coleridge, and Bowen, Lord Justice Fry, and Mr. Justice Manisty. I have always understood that the Schedule was issued under the authority of the Institute as a guide to members, and that their practice and charges were regulated by it. If this has any foundation, I contend that Clause 16 as it stands is calculated to mislead, and tends to raise difficulties between architect and employer. It should therefore be revised to accord with what is now generally agreed upon the subject.



MINUTES. SPECIAL GENERAL MEETING.

PROPOSAL TO ESTABLISH A CLASS OF "CRAFTSMEN."

At a Special General Meeting, held on Monday, 8th July 1895, at 8 p.m., Mr. F. C. Penrose, F.R.S., *President*, in the Chair, with 17 Fellows (including 12 members of the Council), 10 Associates, and 1 Hon. Associate, the Minutes of the Meeting held 24th June 1895 [p. 572] were taken as read and signed as correct.

The Secretary announced the decease of Thomas Chatfield Clarke, *Fellow*.

The following member, attending for the first time since his election, was formally admitted and signed the Register—namely, Allan John Pinn (Exeter), *Associate*.

Mr. Aston Webb, F.S.A., *Vice-President*, announced that the Council had that day given instructions to issue the new Form of Agreement and Schedule of Conditions for Building Contracts to members. In the absence of Mr. Lacy W. Ridge [F.], who had given notice of a question respecting the said Conditions, and whose question was printed in the notice convening the Meeting, it was not put.

Mr. Aston Webb moved the adoption of a recommendation of the Council to establish, under the provisions of the Charter, a class of subscribing members, to be called "Craftsmen"; and to make and adopt By-laws which shall define, regulate, and prescribe the conditions of membership and the mode of election and admission, and the privileges, obligations, and benefits of, and the payments to be made by, the proposed new class.

The By-laws and Declaration governing the proposed new class, the substance of which was explained by Mr. Aston Webb, were submitted as follows:—

By-laws.

4 (i). Craftsmen shall be persons, not professionally engaged in practice as Architects, who are working at any of the crafts connected with Architecture, or who have designed or executed such work or works as shall, in the opinion of the Council, promote the interests of Art.

4 (ii). Every nomination of a candidate as Craftsman must state his Christian name, surname, place of residence, and place or places of business, and must be subscribed by him. Such nomination may be made either by the Council or by at least three Fellows, who shall certify their personal knowledge of the candidate.

4 (iii). A Craftsman may use after his name the following affix—"Craftsman R.I.B.A."

By-law 11, line 4 from bottom, add the letter D, the passage to read thus: "Declaration A, B, C, or D."

15 (d). The entrance contribution of each Craftsman shall be at least one guinea, which shall be appropriated to the Library Fund, and his annual subscription shall not exceed two guineas.

22 (i). Every Craftsman shall sign and return to the Secretary within two months from the date of his election the Declaration D duly witnessed; and any Craftsman contravening such Declaration or conducting himself in a manner which in the opinion of the Council is derogatory to his position as such shall be liable to suspension or expulsion in manner provided by By-law 28.

57 (i). No Craftsman shall be entitled to vote in the

election of any candidate for admission to the Royal Institute, nor in the election of the Council or the Standing Committees, nor on any professional question.

Declaration (By-law 22).

D. FORM TO BE SIGNED BY A CRAFTSMAN.

I, the undersigned,, having been elected a Craftsman of the Royal Institute of British Architects, do hereby declare that I am not and have no intention of following the profession of an Architect, but that I am engaged in, a craft connected with Architecture; and in consideration of my having been so elected I promise and agree that I will be governed and bound by the Charters of Incorporation and By-laws of the said Royal Institute, which I hereby acknowledge to have read, and by any alteration thereof which may hereafter be made, so far as they are applicable to the class of Craftsmen, until I shall have ceased to belong to that class. I further promise that if and whenever I use after my name the affix "Craftsman R.I.B.A." to which I am entitled, I will do so in that form and in no other; and that by every lawful means in my power I will advance the interests and objects of the Royal Institute.

Witness my hand this day of 189

Signature

Signed by the above-named in the presence of.....

Name of witness

Address

Whereupon, after discussion [see Appendix], it was

RESOLVED, That this Meeting, while accepting the general principle of the scheme, refers the matter to the Council for consideration of the details and for submission of the same to a subsequent Special General Meeting.

The proceedings having thus been brought to a close, the Meeting separated at 9.15 p.m.

APPENDIX.

THE PRESIDENT said that the subject of the proposed new class of members had been for a long time before the Council by means of a committee, of which he had been Chairman, and that they had decided to recommend the Institute to associate to itself a new class of members to be called Craftsmen. The particulars would now be explained by Mr. Aston Webb, an active member of the Committee.

MR. ASTON WEBB [F.], F.S.A., said that he claimed no initiative whatever in the matter, but having taken some part in the deliberations of the committee referred to by the President, it fell to him to formally bring the subject before the Meeting. This he would do as shortly as he could, and if any questions arose he might be allowed to say a word or two in explanation afterwards. The principle involved in the proposed change was not a new one. When the Institute was first started the Presidents were not architects at all, so that from the very commencement members had been admitted who were not practising architects. Earl de Grey, their first President, and Mr. Beresford Hope, President a few years later, were neither of them architects. For some years after that, so far as he knew, there might not have been a non-practising architect among them, but about 1877 it was felt that it would be desirable to add as members gentlemen outside the profession who might feel an interest in the work of the Institute and take part in its discussions. With that view a new class styled Honorary Associates was started. That, he believed, was during the Presidency of Mr. Charles Barry, and a large number of members in that class were elected at that time. It had been generally admitted that the admission of those gentlemen to membership of the Institute, and the interest taken by them in its work, had had the effect of extending considerably the Institute's influence outside the strictly professional body. There were at the present time several

very active and most useful members who were Honorary Associates. He did not propose to mention names, but several of those gentlemen had been of the greatest possible use, and had given their services on the various Standing Committees, and brought outside interest into their proceedings. The President really had started the idea in his Address at the opening of the Session, when he referred to the great decrease in the number of Honorary Associates, and expressed the hope that some means might be found of eliciting the interest of a further number of gentlemen in the proceedings of the Institute. As a matter of fact, the number of Honorary Associates had steadily declined year by year, and at the present time there were not more than half the number that there were at the commencement. So far as could be ascertained, this was not due to any want of interest on their part. Death had removed many, and no sufficient effort had been made to obtain new members to fill their places; so that it had now come to pass that the Institute was being perceptibly weakened by the dropping out of those gentlemen. A committee had consequently been appointed to consider whether it was desirable to increase the class of Honorary Associates, and, if so, in what way that could best be done. Mr. Alfred Waterhouse, Sir Arthur Blomfield, Professor Aitchison, Mr. John Belcher, Mr. Arthur Street, Mr. Brydon, the Honorary Secretary, Mr. Florence, Mr. Caroe, and one or two others were all members of that committee, and attended and very fully considered what could be done. The committee were met at once with the difficulty that the Honorary Associates were expected to pay a subscription of two guineas a year. It was felt by many that in asking gentlemen to join the Institute as Honorary Associates it was difficult to explain to them that although they were honorary they had to pay a subscription—very properly, in his view, because they received material benefits in the way of the Institute JOURNAL, the use of the Library, which was one of the finest in England, and in attending the meetings; so that it was only right that they should pay a subscription. In the course of discussion a suggestion was made that the subscription should be omitted altogether, seeing that there were so many men whom they were all anxious to see as members, and whose presence it was thought would undoubtedly strengthen the Institute. But the Charter did not allow that. Then it was suggested that a new class of members should be created; and upon referring to the Charter and By-laws it was fortunately found that they were elastic enough to permit the addition of a new class of members. The suggestion was favourably received by the committee, and then the question arose as to what the name should be. It was thought that as it was the general wish and desire to affiliate with the Institute a certain number of gentlemen who were recognised as workers—real workers in art subjects allied to architecture—if they called it a class of Craftsmen that would be the best possible designation that could be adopted. That suggestion was brought before the Council, and the Council adopted it and referred it back to the committee to work the matter out in detail. This had been done, and the result was now before the Meeting in the shape of the proposed By-laws, which, if the proposition were carried—and he hoped it would be—it would be necessary to incorporate with the existing By-laws. He might mention that since the suggestion had been adopted by the Council a requisition had been signed by certain members that if the proposal was adopted by the Meeting the sense of the general body should be taken by means of a poll. That requisition had been signed by several members of the Committee—not, he was glad to say, in any hostility to the proposition, but in order to give the general body the opportunity of expressing an opinion upon the subject. Sir Arthur Blomfield had intended to be present to support it, but he (the speaker) had received a letter from him to say that he was extremely sorry he

had been obliged to go into the country and could not possibly attend. Mr. Belcher had also authorised him to say that he was one of those who originally proposed such a scheme some years ago, and he was still strongly in favour, although he had signed the requisition for obtaining the general opinion of members, feeling possibly that at the present time of the year they might have a small meeting. With regard to the By-laws, it was proposed that the description of gentlemen who were to become craftsmen should be: (i.) "Craftsmen shall be persons, not professionally engaged in practice as architects, who are working at any of the crafts connected with architecture, or who have designed or executed such work or works as shall, in the opinion of the Council, promote the interests of art." It was especially put in that the candidates for this class must be actual workers themselves. It was not proposed in any way to admit gentlemen, however active and capable they might be, who employed others to do their special work; it was desired only to embody in the list those gentlemen who actually worked themselves or who designed the work which was carried out in their name. With regard to the nomination of candidates as Craftsmen, it was proposed to place that practically on the same level as the nomination of Fellows. They did not wish to place the gentlemen whom they hoped to see members of their body on any different basis from themselves; they should be put under the same restrictions and regulations. The subscription it was proposed should not exceed two guineas. The question was still open whether it should be one and a half or two guineas; that, however, was a matter of detail which could be considered later. It was desired that the candidates should be scrutinised with the same care, that their names and qualifications should go before the Council and the general body of members, and pass through exactly the same searching examination as those of the other classes of members. By "examination" he did not, of course, mean a qualifying examination. Other by-laws were proposed which had not yet been printed, but they had had the advantage of the opinions of one or more of the Allied Societies, who thought that some further regulations were required. One was that a Craftsman might use after his name the affix: "Craftsman R.I.B.A." It had been suggested that possibly a man might use "M.R.I.B.A."—for himself, he did not think that at all likely; but in order to make it quite clear it was proposed that they should be allowed to use the title "Craftsman R.I.B.A.," and in that form only. It was also proposed that in the declaration under By-law 20, which now read "A, B, or C," there should be added "D," which would refer to the Craftsmen themselves. It was also proposed that a new By-law, to be numbered "22 (i)," and a new Declaration (D) [see *Minutes*] should be added in order to put the Craftsman on precisely the same terms as the other members. He thought it would be a great advantage to the Institute to enlarge its lines to some extent in the way proposed. It was not a new principle; it was practically the same principle, but it would be easier and pleasanter, he believed, to ask those gentlemen to join as Craftsmen than to ask them to join as Honorary Associates. At present they were admitted to the Meetings; they were good enough to come and read Papers on Art Committee evenings, and on other occasions, and he thought if they could still further interest them by enrolling them as members, the Institute would be gainers; and he hoped that they would also find that their association as members would be pleasant and an advantage to them.

MR. J. M. BRYDON [*F.*] said that, as one of the sub-committee who had taken some little trouble over the matter, he might perhaps be allowed to second the proposal that had been made by Mr. Aston Webb, who had gone so fully into what might be appropriately called the genesis and the particulars of the new class—first of all, how it came to be suggested, and secondly, the condi-

tions under which the gentlemen were to be elected, and who they were to be—that it was unnecessary for him to say anything further on that point. Mr. Webb had also fully explained the aim the Council had in view in proposing to attach a new class of members in their capacity as co-workers in the work that they were all engaged in—that is to say, in advancing the art of architecture. He should therefore only say a very few words more on the principle of the matter, because the details were, after all, matters of formality to a certain extent, which must be carried out so as not to interfere with the conditions of the Charter, and at the same time not to put the new men in an anomalous position, so that they would feel that they were different from the Fellows and Associates who happened to be architects. Their sole object was to make them all of one class; and with that aim in view they wished to associate themselves with the men who were working under them, and with whose assistance they carried out the works that came under their care. What, after all, was the object of the Institute? As he understood, it was to encourage and promote in every way the art of architecture, the mother of all the arts; and they had an idea that if they could bring as many of the children of art as possible round the mother, who was their centre and their parent, they should be doing good to the great art of architecture. Who were the men they wanted to associate with them? That was, after all, the crux of the whole question. In a word, the men they wanted to bring in were frequently seen among them, helping them in an honorary capacity at meetings, especially those under the charge of the Art Committee; they had come there and read excellent lectures and Papers on decoration, and on stained glass, and metal-work, and textile fabrics, and various other subjects—all of which were arts allied to architecture, and without which the architecture of the buildings that they erected as architects would never assume so complete a form. It was manifest to anyone who had studied the history of the revival of art during the last thirty or forty years that the arts allied to architecture had made strides in England which had not been equalled by any other country in the world; he spoke, of course, with some deference in thinking of France. They had made immense strides, particularly in the arts allied to architecture, and they wished to have the help of those men to strengthen their work in the Institute. It was to them that they looked to a great extent for the carrying out of their own ideas in what he might call the more ornamental, or the decorative, parts of their own work, both inside and outside. He referred to the sculptor, the carver, the metalworker, the painter of stained glass, and so on. They must all have felt how much, as architects, they were indebted to the skill and knowledge—the practical technical knowledge—of the men who were carrying out such works as those for the success of the buildings in which they were engaged. The architect might give them his general ideas in each particular department, but, unless he had a body of men who thoroughly understood the drift of those ideas, it was impossible for them to work with him in the same spirit. That was exactly the thing they wanted, if possible, to encourage in the proposed new class of Craftsmen. They as architects were still the master-workers directing the building that was going on, but they wished to look upon the men who worked under their direction as fellow-workers in every way in producing the results that they hoped would be for the advancement of the art of architecture in its highest and best sense. It was for that reason that endeavour had been made to meet the question in this case by the creation of this new class of Craftsmen. That name was about the most honourable name they could call anyone. They themselves were all craftsmen—all workers; and they, the architects, who worked with their heads, their hands, and their hearts, wanted to have the co-operation of the men who were working with their

heads and hands, in another manner, though in the same path. For that reason they wished to associate them with the Institute if possible. Mr. Aston Webb had used the word "examination"; but, as he explained, there was to be no examination but the quality of the work; that was, after all, the examination for them all; and he hoped that, whatever the Institute might come to, the only examination of all its members, whoever they might be, would be the intrinsic quality of their work; and on the strength of that they proposed to admit these Craftsmen. They were not supposed to be merely employers of labour; they were the labourers doing the work themselves, either in designing handicraft or carrying out the works which actually appeared in the building itself; and for that reason they were named by the most honourable name of Craftsmen. Then there was one other point which might be brought in—a little objection had been made that they were trenching very closely upon the province of trade. Theirs, he supposed, was a professional society, inasmuch as the majority of members were what were called professional men. But, as Mr. Aston Webb had said, they were introducing no new element; they had Honorary Associates at the present time engaged in what the world would call trade—indeed, it was difficult to draw a line between where art ended and trade began—at any rate, it was not for them to draw the line. Trade had nothing to do with the question—the point was the man's skill in art pure and simple. There were one or two details which he thought might safely be left for consideration afterwards before the actual By-laws were printed—for instance, the amount of subscription. The Honorary Associate's subscription was two guineas a year; but if they read the extract from the By-laws placed at the head of the list of Honorary Associates in the *CALENDAR* they would see that it did not quite apply to the men they wanted to get hold of. The men they wanted were not the wealthy, the great, and what the world called famous, but the real men doing the real work, and those men could not always afford a large subscription. He had great pleasure in seconding the resolution, because, first and foremost, he thought it was for the benefit of their noble art of architecture; secondly, he thought it was for the benefit of the Institute as an institute; and thirdly, he thought it would be a benefit to the men who joined them, a benefit to themselves individually as artists. Therefore, he thought it would be a wise thing on the part of the Institute, when they must move with the times, and when art outside the province of mere building was so extending and so full of life, to take what they could of that life and bring it into themselves, and get a benefit from it in full fruition by communion with each other.

Mr. JAMES BROOKS [F.] said that in the main principle of the proposition he was entirely in accord with Mr. Aston Webb and with Mr. Brydon. They, in carrying out their work as architects, wished to have associated with them as members of the Institute under the name of Craftsmen—which he thought a most excellent title—those gentlemen who did so much for their art. They were associated with them day by day, and they should be glad to know them as members of the Institute, to be able to look to them and to know that, having been admitted as real Craftsmen, they might turn to them for their aid and assistance in the development of their buildings, so as to make them still more beautiful than the architects could do by themselves. He most cordially supported the principle; but the By-laws had not yet been under discussion, and there might be a great deal to be said about them.

PROFESSOR KERR [F.] thought they should all agree upon what Mr. Brooks had called the principle of the proposal; but anything more crude than it seemed to be in detail he had never heard mentioned in that room. It was impossible, it seemed to him, to come to a rational conclusion upon the subject that evening. Not only so, but there seemed to have been a sort of protest delivered

to the Council, calling for a poll whatever the result of the meeting might be. Now the poll itself would be money thrown away; and, after all, what would be the use of it? With all respect to those who had taken up this matter, he would suggest that they should think over it a little more during the recess, and let the matter be brought up again when they could get a proper meeting of members. The question which was first raised by his distinguished friend Mr. Aston Webb—the historical question—was one that must not be allowed to drop altogether. The true history hinted at by Mr. Aston Webb was this: the Earl de Grey might be said to have been the means of starting the Institute as a public institution, and therefore he was proposed as President; and when once he accepted that office, he, being a distinguished and eminent person of great influence, was requested to retain the post practically during his life; and although he never, except on formal occasions, attended their meetings, yet he was of the greatest possible use to the Institute at that time, and he had never been replaced. As regards Mr. Beresford Hope, he was put in by the then frantic Gothic party as representing the demolition of classical architecture. He was an exceedingly able man, and a very amiable man, but he was of little use to the Institute. The fact of those two distinguished men being Presidents of the Institute did not influence this proposal in the slightest degree. But there was another matter that Mr. Aston Webb had either forgotten or had not been informed of which did influence it very much. In the early years of the Institute they had a most important class of members called Contributing Visitors. Some of them might remember that old Mr. Crace, the father of their friend who was occasionally there now, was a constant attendant, and a most useful man in debate as an artist. Their proposal now was to exclude men like that. [THE PRESIDENT: No, that class they had already as Honorary Associates.] Mr. Crace, senior, was absolutely turned out when new By-laws were made in 1877. It was a stupid thing to do; and he thought they might now introduce something on the old lines. But he really hoped they would take time to think over it, because if they made a mistake in that particular direction it was a mistake that might never be retrieved; it might tend to derogate from the dignity of the Institute very much unless it was very carefully managed. With all respect to the gentlemen who had taken so much pains already, he thought they must be asked to take a little more; and he was sure Mr. Brydon and Mr. Aston Webb would take a great deal more pains rather than make a mistake. The general idea, which commended itself to all of them, was this, putting it in another form. As he had very often taken the liberty of saying, here and elsewhere, the term "architect" had a meaning, and it meant "the chief workman," "the head of the craftsmen"; and he had always thought that the more they could get of the craftsman element into the Institute the better. But the word "Craftsman" would not do. Not one of those gentlemen whom they had been hinting at would condescend to call himself a Craftsman of the Institute. Those men whom they wanted to bring in were as good as the architects; and, in their own estimation, a little better. But what he understood to be the proposal was this: that artistic artisans and others of their kind should be invited to be members of the Institute. Was that it, he wished to ask—that artistic artisans of high class should be invited to become members of the Institute? [MR. ASTON WEBB said he would prefer to leave it as he had put it.] That was why he said that the proposal was crude. A proposal was brought forward and they were bound to expound it. [MR. BRYDON said that what they meant by the term "Craftsman" was, it was perfectly true, the artistic artisan in the same sense as they were all artisans; but they wanted the man who did the work himself—the man of skill and brain—not the employer of labour who would pay him and make a handsome profit for himself.]

Then they kept out Mr. Crace and let in Mr. Crace's painters! [MR. ASTON WEBB replied that they had got Mr. Crace as an Honorary Associate, and they wanted his men as Craftsmen. Mr. Crace was present at that meeting, and was one of those who took a great interest in the question.] What he (Professor Kerr) ventured to say individually was this: that it would strengthen the Institute very much if they, as head craftsmen, could get the real craftsmen around them of a certain class. He did not mean the man at weekly wages, but he meant the designer; and there were, as Mr. Brydon suggested, a very great number of highly artistic designers in this country now who were left, to a certain extent, in obscurity by reason of the middleman, as he was called. But they could not ask all classes of designers to come in, and they could not ask all classes of craftsmen. It was a very difficult question, and they must think over it a great deal more. He would therefore respectfully move as an amendment, in any form that gentlemen might think best, that the matter be postponed till the next Session of the Institute.

MR. JOHN SLATER [F.], B.A., said he should like to point out that, in the face of the requisition which had been sent in to the Council, even if the Meeting decided upon the principle, voting-papers would have to be sent to all the members of the Institute as to whether they agreed with the principle. They could not, he thought, consider the principle without the full details of the scheme, and, after what had fallen from Professor Kerr, he thought it would be wiser for the Council to take the matter back and to consider it more in detail before next session. He quite agreed with all that had been said by Mr. Aston Webb and Mr. Brydon as to the desirability of admitting craftsmen, or artistic artisans, or whatever they were to be called, as members of the Institute; but he could not also help feeling that it was a wise move on the part of those members of the Council and others who had sent in a requisition to send it now, so that they might avoid making what was a radical alteration in their constitution at such a small meeting as the present. It was a radical alteration, it was a far-reaching one, and he did not think that even those members of the Council and others who had given it their best thought quite knew how far-reaching it was. He, for one, although a member of the Council, and although he had not signed the requisition, felt disposed to, and would, second Professor Kerr's motion that the whole matter be referred back to the Council to bring up again next Session with full details as to how they proposed to carry out the alteration, so that it might then be submitted. He had not had any conversation with any of the requisitionists, but he felt almost certain that the gentlemen who had signed the requisition would be quite satisfied at present if that was done. And it might very well be that, with further consideration of those details, when the scheme was brought forward again, it would meet with the acquiescence and support of those who signed the requisition, and it might not be necessary to go to a poll of the Institute at all. Under those circumstances, he begged to be allowed to second Professor Kerr's amendment.

MR. H. L. FLORENCE [F.] said he should have preferred to refrain from adding anything to the discussion lest it be thought that he spoke in any opposition to the proposal; but as one of the requisitionists and a mover somewhat in the matter he was exceedingly anxious that it should be considered by the Institute generally. The matter had been brought before the Council at a late period of the Session; it had been impossible for all to attend every meeting or to go very fully into the principles or prospects of the proposal; but all must see that it was a most serious thing to introduce a new class into a society like theirs. It should only be done as the result of very grave and continued deliberation. A false step was most difficult to retrace, and might leave effects and lead to consequences that no one at present foresaw. As to the desirability of adding a new source of strength to the Institute by

the admission of a class like that referred to, few would question that it might be a source of power to the Institute. He would even go further than either Mr. Aston Webb or Mr. Brydon, by suggesting that it might be possible to bring them in on even more advantageous terms without giving so direct an influence and without the power of taking so prominent a part in professional and business matters. He should be almost more willing to see them brought in without any contribution at all, or perhaps just an entrance fee, than to see them subscribing members, as a new class, exercising a new influence, the extent of which could not at that moment be comprehended, and perhaps by combination exerting a most powerful influence on the destinies of the Institute. Therefore he, with some others, had signed the requisition, not at all in a spirit of opposition or delay, but because it was important that the matter should not be rushed through at the fag-end of the Session, and should not be judged upon by a meeting of the proportions of that at present assembled. Some considerable time should be given to work the scheme out, not only in the general principle, which he thought all agreed upon, but in the regulations, the by-laws, the stipulations, and conditions, which would give rise to much anxious consideration, and which must be well discussed. The end of the Session was not the time for that. Let them think over it during the vacation; and when they started work afresh in the autumn, let them come with the result of more mature consideration, and see how they could bring that scheme in a perfect and workable form before the members. Therefore, although he was at one with the Council and with the committee on the principle, on this occasion he was, as he had often been before, a supporter of Professor Kerr.

Mr. ALEXANDER GRAHAM (F.), F.S.A., said that as the requisition had been spoken of, he should like to say that he had signed it after full consideration. He thought that the matter was one which affected the general body and the general constitution of the Institute, and that it was right that every member should have an opportunity of expressing his opinion upon it if he thought fit to do so. The matter had been brought forward at the end of the Session, and, as could be seen from the small gathering that evening, and from the previous meeting, which was equally small, it was not the time of year when a matter of vital importance, not only to the Institute but to architecture as an art, should be brought forward and voted upon without full consideration. He could not help thinking, after what had transpired, and especially after the remarks of Professor Kerr, that it would be very much better if the matter were more fully thought out. There were a great many things in its favour, but there were a few which he fancied might be against it; and although he was one of those who strongly advocated, and had done for a long time, a proposal of this kind, he was of opinion that they would do better if they thrashed it out more in detail. The Council could then bring it up early next Session in such a form that there would, he hoped, be no necessity to take the poll that had been asked for, and a unanimous resolution would probably be passed that the class of men they were going to introduce would be a very great benefit, not to the Institute only, but for architecture as an art. What had been said with regard to the history of the matter seemed to him to be perfectly true; but there was one thing that had not yet been mentioned, namely, that the allied arts had made most extraordinary progress in recent years. They, as architects, were thrown so much into contact with the gentlemen whom they called Craftsmen that they could not possibly do without them, so much so that they were constantly being asked for their assistance in the work of the Institute, either in reading Papers or in taking an active part on the Committees, which they did with the greatest loyalty, and in which they had been of great service. If they could attach a large class of those workers, to whom they were more or less indebted every day, and with whom they were in daily

communication, he could not help thinking that the Institute would not only gain, but that architecture as an art would be very largely promoted.

Mr. WILLIAM WOODWARD [A.] said he must confess that at first he looked upon the project with considerable disfavour, but not for the reasons which Professor Kerr and others had urged. His mind had been then filled with a work that had excited considerable attention in literary circles, and which many present might have read, entitled *Degeneration*, by M. Max Nordau. If they would permit him he would read one or two extracts from that work; and, whether or not they agreed with the views expressed by the writer, he was sure they would agree that for vigorous expression and power of thought Professor Nordau was second to none at this end of the century. Professor Nordau said: "And next, what does 'all this spirit mean—what underlies it? . . . To the sensitive nature yearning for æsthetic thrills it means 'the vanishing of ideals in art, and no more power in its accepted forms to arouse emotion. And to all it means the end of an established order which for thousands of years has satisfied logic, fettered depravity, and in every art matured something of beauty.'" The author went on to say: "Men look with longing for whatever new things are at hand, without presage whence they will come or what they will be. They have hope that, in the chaos of thought, art may yield revelations of the order that is to follow on this tangled web." And then, speaking of the class affected, the Professor went on: "'It consists chiefly of rich, educated people, or 'of fanatics.' The Philistine or the Proletarian still finds undiluted satisfaction in the old and oldest forms 'of art and poetry, if he knows himself unwatched by 'the scornful eye of the votary of fashion, and is free to 'yield to his own inclinations.' And yet the tendency is 'not to be discussed, as some people do, as 'a passing 'fashion and nothing more.' It means 'the confluence 'of two well-defined conditions of disease . . . viz. 'degeneration and hysteria, of which the minor stages 'are designated as neurasthenia.'" And then the Professor proceeded: "All these new tendencies, realism, 'or naturalism, 'decadentism, neo-mysticism, and their 'sub-varieties, are manifestations of degeneration and 'hysteria. . . . Led by this firmly linked chain of causes and effects, everyone capable of logical thought will recognise that he commits a serious error if, in the æsthetic schools which have sprung up in the last few years, he sees 'the heralds of a new era. They do not direct us to the future, but point backwards to times past. Their word 'is no ecstatic prophecy, but the senseless stammering 'and babbling of deranged minds, and what the ignorant 'hold to be the outbursts of gushing, youthful vigour and 'turbulent, constructive impulses are really nothing but 'the convulsions and spasms of exhaustion.'" His (Mr. Woodward's) mind had been filled with those extracts when he received the notice-paper announcing the subject for discussion that evening, and he thought that the author's words did to some extent apply to the proposal which was set forth in that Paper. He confessed, however, that after hearing Mr. Aston Webb and Mr. Brydon's exhaustive statement of the real object of the new departure, he looked with very much more favour upon the proposition; and he could not follow Professor Kerr nor Mr. Florence nor Mr. Slater in thinking that the subject needed a more thorough thrashing out. It appeared to him that with a few emendations the proposed By-laws contained all necessary safeguards. The nominations were left to the Council, and Mr. Aston Webb had told them that the election would be in the same way as the election of the other classes of members. The word "election," however, did not appear in the By-laws, and that was a question he should like to raise. He thought words should be added to say that the election, not only the nomination, should be similar to the election of other

members of the Institute. Mr. Brydon had, he thought, grasped the idea of the Craftsmen. As he understood, the Craftsman was the man—taking the smith for example—who in wrought-iron had produced something which in the minds of the Council of the Institute was a work of art connected with architecture; or, to take other branches of art, the man who had decorated; and the same expression should be extended to apply to the artistic artisan—the designer, for example, of the internal decorations now frequently seen—such men were artists in the strongest possible sense of the word, and would be worthy members of this or any other Institute. With regard to the By-laws themselves, he would suggest the addition of the words “and of architecture” in By-law 4, so that it would read, “as shall, in the opinion of the Council, promote the interests of art and of architecture.” With regard to the appropriation of the fees, it was suggested that the fees should be devoted to the Library Fund. To his mind the Library Fund was not in want of those fees, but the Institute was. That was a minor matter, and he thought that they should subdivide the fees in the way that appeared to be of necessity at the moment. Then in the Declaration he would propose that the last words should read: “I will advance the interests and objects of the Royal Institute, and of architecture as an art.” He did not think the proposed new members should be asked to pay a couple of guineas to advance the interests of the Royal Institute. What was meant was that they must pay a couple of guineas to become members of the Institute, and they would advance the objects and interests of the Royal Institute and of architecture as an art. He ventured to think it would be regrettable if the subject were shelved for another Session. It seemed to him that they might leave those matters to the Council. The members had the privilege of electing or rejecting the particular gentlemen suggested by the committee, and therefore they had the matter entirely in their own hands. They had ample opportunity of thoroughly enquiring into the antecedents and merits of any particular candidate, and that being so, it seemed to him that they were as fully prepared to carry out the proposed scheme as they were prepared to carry out the election of any member of the Institute. He was sure that Professor Kerr and others had no desire to unnecessarily delay the matter, and he ventured to suggest, with all deference to the speakers, that they could very well pass the By-laws as they stood, with slight modifications, and let the matter come forward at once. It was a subject that they were all thoroughly acquainted with. At all events, with the safeguard of a poll being taken of the General Body, he should strongly support the proposal to adopt at once the principle of the matter, and let the general views of the Institute be heard upon the paper to be sent out.

THE HONORARY SECRETARY thought it highly interesting to feel that the “degenerate babbling” of an “exhausted” Council had found some favour in Mr. Woodward’s mind, and he should like to move as a second amendment, which perhaps Mr. Woodward would be good enough to second, That this Meeting approve of the general principle suggested of a further class of associated members, and that the Council do reconsider the details of the scheme and bring them before a General Meeting next Session. Then, if the requisitionists should consider it necessary to have a poll, the poll could take place after that.

Mr. WOODWARD seconded the amendment.

Mr. R. PHENE SPIERS [F.], F.S.A., asked whether the Allied Societies had been consulted, as there might be some very cogent reasons in the provinces why craftsmen should not be admitted.

THE SECRETARY replied that the Allied Societies had not yet been officially approached on the matter.

Mr. EDWIN T. HALL [F.] thought the Honorary Secretary’s proposal would be a way out of the difficulty. If that proposal were adopted he would suggest that it

should be adopted subject to details to be submitted to the Council at a later meeting.

The Honorary Secretary assented to the suggestion, and a discussion then followed on a question raised by Mr. Slater as to whether the requisition did not bind the Council to go to a poll of the General Body at once. It was ultimately agreed, with the concurrence of those present who had signed the requisition, that the adoption of an amendment in the form suggested by the Honorary Secretary rendered it unnecessary at the present stage to proceed to a poll. The amendment was then put and carried unanimously [see Minutes, p. 596].

PROCEEDINGS OF ALLIED SOCIETIES.

Architectural Education at Liverpool.

A meeting of the Liverpool Architectural Society was held on the 20th June at the office of its ex-President, Mr. Henry Hartley [F.], to discuss, on the invitation of Professor F. M. Simpson, a scheme of architectural education drawn up by him for the City of Liverpool School of Architecture and Applied Arts. The details of the scheme were fully considered, and at the close of the Meeting a resolution was passed expressing entire approval of the principles of education laid down, and recommending architects to conform to the suggestions as to apprenticeship and premium contained in it. A copy of the resolution has since been sent to all architects practising in Liverpool and district asking them, if they approve, to sign and return a form stating their willingness to shorten the term of pupilage and reduce the ordinary premium for students who, having attended a two years’ course at the College, have been awarded the College Certificate. The following particulars of the scheme have been furnished by Professor Simpson:—

The course of studies is so arranged as to meet the wants of two classes of architectural students—(1) those already engaged in architects’ offices as pupils or assistants; (2) those who, intending to become architects, shall pass through a course of preliminary training before entering an architect’s office. For the latter class of students the course of training extends over two years, and embraces Freehand and Architectural Drawing, Construction, and a knowledge of building materials; Design, both elementary and advanced; the History of Ancient and Medieval Architecture, Mechanics, Modelling, &c.

The course is not intended to supersede pupilage, but to be preparatory for it. It is now customary for the student, as a rule, to go straight from school into an architect’s office as a pupil. He has, in nearly all cases, no knowledge whatsoever of architecture, often none at all even of drawing, and his first year or two are consequently more or less spent “picking up” in a casual, unmethodical manner the rudiments of his craft.

It is, in a great measure, to prevent this undoubted waste of time, and to provide a systematic course of training from the very beginning, that this portion of the scheme is started. Students who pass through the two years’ course will, on entering an architect’s office, have a fair knowledge of drawing, construction, and design, and will thus be able, from the very first, to derive full benefit from seeing work in actual progress, and working on the drawings for the same in a good architect’s office.

A somewhat similar scheme has been in existence for several years in the principal towns of America, and has been found to work most successfully. In New York, at Columbia College alone, Professor Ware, in a Paper read on 12th June 1888, said: “Meanwhile, beginning with ‘one or two students six years ago, we have this year ‘had nearly sixty, and instead of occupying one corner ‘of the miners’ drawing room, we have seven rooms of ‘our own.’”

The Architectural Department comprises a well-fitted

Studio, about 33 feet square, and a Lecture-room adjoining. There is already a large collection of over one thousand architectural plates, drawings, photographs, &c., for the use of students. An Architectural Library, containing the principal books of reference, and a Museum of Building Appliances, illustrating the various materials &c. used in building, are now being formed, and will be available for students. The Applied Arts Building contains also a good collection of casts—architectural and the figure.

The Architectural Studio is open every week-day, except Saturday, during the College Terms, from 10.0 a.m. to 4.0 p.m. (on two days until 5.0 p.m.), and from 7.0 to 9.0 on four evenings of the week.

Students entering for the complete course pay a Composition Fee of £25 for the Session of three terms. This admits them to all Lectures by the Professor of Architecture or his Demonstrator, to the Architectural Studio whenever open, to the Lectures by the other Professors on the subjects mentioned in the time table, and to all the Classes in the Applied Arts Lecture for which they have time.

Students are recommended to enter for the Preliminary Examination of Victoria University before commencing the Architectural course, so that their general knowledge may be thoroughly tested. Special attention is also directed to the College courses provided in Mechanics, Physics, French, German, English Literature, &c.

The Board of the College, recognising the necessity of offering Prizes to students working in the School, and having no funds at their disposal for the purpose, have resolved to invite subscriptions from persons interested in art training, in the hope that they will be enabled to start a prize fund. The Board have approved the following list of prizes, and hope to be able to advertise some at least in the Prospectus for the next Session:—

Architecture.	Sculpture.	Dec. Painting.	Total.
Antique	£2 & £1	£2 & £1	£6
Head from Life	£2	—	£2
Drapery	£2	£1 & £1	£4
Figure from Life	£3, 2, 1	£3, 2, 1	£12
Painting from Life	—	£2	£2
Ornament	£2	—	£2
" (design)	£2 & £2	—	£4
Stained glass	—	£2	£2
Wall decoration	—	£2	£2
Black and White	—	—	—
(wash and line)	—	£1 & £1	£2
Wall paper	—	£1	£1
Drawing	£2 & £1	—	£3
Design	£3, £2, & £1	—	£6
Wood carving panel. £2 and £1	—	—	£3
Wrought-iron work. £2 and £1	—	—	£3
Making a total of			£54

LEGAL.

Builders and the Public Health Acts.

On 11th June at the West London Police Court Mr. Rose heard twelve summonses, three in respect of each of four houses in Claxton Grove, Fulham, alleged to have been let by Mr. Edward Lowman, contrary to the provisions of the Act. Mr. Blanco White, for the Fulham Vestry, stated that the first offence was under the Public Health Act of 1891 (section 48 (1)), for letting the houses and allowing them to be occupied without ashpits and a proper water supply. The second offence was under the same Act (section 48 (2)), for letting the houses before obtaining a certificate of there being a proper supply of water. That certificate, he said, was for the protection of the poor, so that builders should not let houses to obtain rent or mortgages before the water had been supplied. The third offence was under the Metropolis Management Act 1855 (18 & 19 Vict. c. 120), s. 75, for constructing drains contrary to the regulations of the vestry. He said that the ventilating pipes were left under the windows, so that the gases escaped into the living-rooms.

Dr. Jackson, the medical officer of health, gave evidence that there was not any water supply, and said he considered it a serious case, for when they had new houses they expected to find them in a good sanitary state. One of the occupiers, a man named Cox, said he went into the house on 28th January. There was not any water supply in the house, but there was a standpipe outside, from which he obtained all the water required. The water was put on on 13th May.

Mr. Cooney, for the defence, raised several objections to the proceedings, one being that a proper notice was not served, and said that the proceedings were arbitrary, as the defendant had been in correspondence with the company for the supply of water during a period of six months.

Mr. Rose imposed a penalty of £2 with costs in respect of each house under the Public Health Act, and 10s. with costs in respect of each house for not obtaining a certificate.

In the third case Mr. Cooney contended that the ventilators had been properly constructed, but consented to pay the costs.

Street for Foot Traffic only.

THE LONDON COUNTY COUNCIL v. DAVIS.

This was a case stated by a Metropolitan police magistrate, which came before a Divisional Court, consisting of Mr. Baron Pollock and Mr. Justice Wright, on 13th June.

The respondent Davis had been summoned upon a complaint made by the appellants before the magistrate for unlawfully commencing "to form or lay out a road, passage, or way for building as a street for foot traffic only" without their previous sanction, and contrary to section 8 of the Metropolis Management Amendment Act 1882. The road, passage, or way was an approach through a gateway to two blocks of buildings intended for artisans' dwellings, both of which blocks fronted on to this passage or way, and each of the blocks had a door leading to the central staircase of each block and opening on to the said way. The buildings were to consist of forty separate sets of chambers in each block. The gateway and passage were not intended to be open to the public, but were for the use of the tenants of the sets of chambers in each block. The passage was 200 feet long and 20 feet wide, and had no other exit but through the said gateway into a street. The magistrate held that as the passage or way was not intended to be used by the public, it was not, in his opinion, a street for foot traffic, and dismissed the summons, but stated a case.

Mr. Horace Avory and Mr. Daldy appeared for the appellants; and Mr. Cripps, Q.C., and Mr. Scott-Fox for the respondent.

The Court held that upon the facts stated the magistrate was justified in holding that this road, passage, or way was not commenced to be laid out as a street for foot traffic; that the finding of the magistrate by no means implied that such a road, passage, or way must be dedicated to the public in order to come under the provisions of the statute; that the question whether such a passage or way amounted to a street for foot traffic was very much a question of degree; that the facts here were entirely different from those in *Daw v. The London County Council*; and that, looking at the purposes for which this passage or way was intended to be used, they thought the magistrate was correct in his finding. Their lordships accordingly dismissed the appeal.

Dangerous Structures: District Surveyor's Fees.

THE LONDON COUNTY COUNCIL v. DIXON.

On the 14th June, at Lambeth Police Court, before Mr. Denman, a summons was heard under which the London County Council sought to recover £5. 10s. 2d. from Mr. Robert Dixon, the owner of five houses in Vicary Street, Brixton Hill, as surveyor's fees incurred by the County Council in connection with the defendant's property.

Mr. Norman Bevan, from the Solicitors' Department of

the County Council, appeared in support of the summons, and the defendant, a solicitor, conducted his own case.

The County Council, in consequence of a letter which was sent to them in October 1894, directed the district surveyor, Mr. Henry Parsons, to survey the defendant's houses. He did so, and reported to the Council that the cornices of the houses were in a defective condition. The attention of the defendant was drawn to the matter, and the cornices were repaired to the satisfaction of the district surveyor, who in all paid three visits to the property.

In cross-examination, Mr. Parsons said he examined the cornice from the footway, the houses being only small ones. It was possible he might not have been occupied more than ten minutes or so on each occasion.

Mr. Dixon pointed out that a separate attendance was charged for each house, and proceeded to call the builder who did the work for the purpose of showing that the cornices were not in a dangerous condition. It transpired that the cost of doing the repairs was about £7.

Mr. Denman said he was clearly of opinion that the cornices were in a dangerous condition, and that the case was one in which the County Council were entitled to take action. He ordered the defendant to pay the County Council the amount claimed, together with the cost of the summons.

The Building Line.

ALLEN AND ANOTHER v. THE LONDON COUNTY COUNCIL.

This was a special case stated by a metropolitan magistrate, who had made an order for the demolition of a certain building in the metropolis as being beyond the building line. The case came on before Mr. Justice Wills and Mr. Justice Wright on the 1st July. The substantial question raised was whether the decision of the architect as to the building being beyond the building line was conclusive and binding on the magistrate.

Mr. Channell, Q.C., appeared for the appellants; Mr. Ivory and Mr. Daldy for the London County Council.

A complaint had been made to the magistrate by the County Council that the appellants began to erect a building beyond the general line of buildings on the north-western side of Birchington Road without the consent of the County Council, contrary to section 75 of the Metropolitan Management Act, 25 & 26 Vict. c. 102. The facts were these. The appellants, on 13th November 1894, began to build four shops and houses upon the land at the corner of Birchington Road, Kilburn High Road, having a frontage of 22 ft. to Kilburn High Road and 58 ft. to Birchington Road. This front in Birchington Road extended 16 ft. beyond the general line of buildings, as determined by the certificate of the Superintending Architect of the London County Council, who stated in it that the main fronts of the buildings in a certain row of houses formed the general line of buildings on the north-western side of Birchington Road, "in which road the building in question is situate, and the building in question would project beyond the prolongation of the said general line." It was contended on behalf of the appellant that the architect had not by his certificate found that the building was situate in the "street, place, or row of houses" described as the north-western side of Birchington Road, and if he had so found, he had placed the building in a "street, place, or row of houses" in which the same was not situate. The respondents contended before the magistrate that the certificate had determined that the building was situate in Birchington Road, and that such determination was binding on the magistrate. The magistrate adopted this view on the authority of the case of the *London County Council v. Cross*,* and directed the demolition of so much of the building as was beyond the line. The question for the Court was (1) whether the certificate showed that the house in question was situate in the street, place, or row of houses on and for which the

general line of buildings was determined; (2) whether it was the duty of the architect to decide and find the situation of the appellants' building, and, if so, whether his decision was binding on the magistrate.

Mr. Justice Wills, in giving judgment, said the question raised was whether the certificate of the Superintending Architect of the London County Council, who now represented the Metropolitan Board of Works under the Metropolis Management Act of 1862, deciding whether the building line in a street applied to a particular building, was decisive of the point in dispute. Looking at the Act, apart from the authorities, the learned Judge would have thought the tribunal which should decide that was the magistrate. But the matter had been much discussed both in the Divisional Court and in the House of Lords. It could not be said that the authorities were satisfactory. In 1886, in the case of *Barlow v. The Vestry of St. Mary Abbots, Kensington* (11 App. Cas., 257), Lord Watson held, without hesitation, that the architect was the person to decide, while Lord Bramwell equally unhesitatingly held it was the magistrate. Lord FitzGerald agreed with Lord Watson. The majority of those learned Lords therefore were against the view that the magistrate was the deciding tribunal. The point also came before the Divisional Court in *The London County Council v. Cross*, where Mr. Justice Denman and Mr. Justice A. L. Smith both adopted the view that the Architect was the person. It was true that the case was subsequently overruled on another point, and therefore could not be called a binding judgment; but it seemed better to follow the views of this majority of Judges rather than to set up his own opinion. The point was not so important as it might seem, because the London Building Act of 1894 had made provision for the appointment of a tribunal of appeal against the Architect. On the second question the Architect must be taken as meaning to decide and determining that the building in question was in the street to which the building line applied.

Mr. Justice Wright, solely in deference to the judgment of the other Judges, concurred. Leave to appeal was granted.

The London Building Act 1894.

CROW v. REDHOUSE.

This was a special case stated by Mr. Dickinson, one of the metropolitan magistrates, on an appeal by Samuel Redhouse, under section 150 of the London Building Act 1894, against a decision by Mr. Arthur Crow, district surveyor for the Whitechapel Spitalfields district. The case came on for hearing on the 4th July before Mr. Justice Wills and Mr. Justice Wright. The report of the proceedings before the magistrate will be found at page 440; that which follows is from *The Times* of the 5th July.

Mr. Dickens, Q.C. (Mr. Daldy with him), appeared for the surveyor; Mr. R. C. Glen, for Redhouse.

The 150th section provides that where it appears from the building notice served on the district surveyor under this Act that it is proposed to erect any building . . . which will be in contravention of this Act . . . the district surveyor shall serve upon the builder or building owner a notice of objection, and it gives an appeal to a magistrate from this notice. The case arose out of the following circumstances. Samuel Redhouse proposed to rebuild a six-storey warehouse, No. 3 Church Street, which, in consequence of a fire and of subsequent proceedings, was taken down as dangerous in November 1894, for more than one-half of its cubical extent, so that the proposed rebuilding would be a "new building" within section 5 (6) of the London Building Act 1894, which defines "new building" as "any building which has been taken down for more than one-half of its cubical extent and re-erected, or commenced to be re-erected, wholly or partially, on the same site after the commencement of this Act." A notice of objection was served by the

* *The R.I.B.A. Journal*, Vol. VIII. N.S. p. 100.

district surveyor on Redhouse. The matters in the notice were, however, remedied with the exception of the objections made to the use without thickening of a wall, forming the west boundary of the site, as the party-wall between the reinstated building No. 3 Church Street and the adjoining warehouse No. 1 Church Street, the said wall not being in conformity with the provisions of the Act as to new party-walls. Before the fire the party-wall had been the party-wall between No. 1 and No. 3. So far as the party-wall concerned No. 1, which had not been seriously injured by the fire, it had been reinstated in the course of the reinstatement of No. 1. These reinstatements had not amounted to the erection of a "new building" at No. 1. Redhouse appealed to the magistrate on the ground that he was not compelled by law to make the party-wall conform to the provisions of the Act of 1894. The extent to which the party-wall had been burnt and taken down in consequence of the fire amounted only to one-third of its superficial area. The remainder was safe. The party-wall had been erected in conformity with the previous building Acts, but was not of the thickness required by the Act of 1894. In support of Redhouse's appeal to the magistrate it was contended that, as the party-wall had not been taken down, burnt, or destroyed to the extent of one-half thereof, by virtue of section 208 of the London Building Act 1894, the proposed use by him of the party-wall was not in contravention of the Act. The surveyor, Mr. Crow, contended before the magistrate that, the proposed re-erection being a "new building" within section 5 (6) of the Act, the party-wall should be so erected as to comply with the provisions of the said Act, and that there was no exemption enacted or implied in section 208. The magistrate thought the contention of Redhouse was correct, and that he could not be compelled to take down, rebuild, or thicken the said party-wall. The surveyor appealed.

Mr. Justice Wright said: As we are unable to agree upon the proper construction of the Act, I have to deliver judgment first. The question related to a party-wall, and the question is whether it is to be considered as a new structure within the London Building Act 1894. If this party-wall is considered by itself, it has not been pulled down or destroyed to the extent of one-half; and therefore, if taken by itself, it is not within the section requiring it to be constructed as a new wall. The Metropolitan Building Act 1855, section 10, enacts: "Whenever any old building has been taken down to an extent exceeding one-half of such building, such half to be measured in cubic feet, the rebuilding thereof shall be deemed to be the erection of a new building; and every portion of such old building that is not in conformity with the regulations of this Act shall be forthwith taken down." If that section is re-enacted in the Act of 1894, either in substance or expressly, the whole of this building comes within it, and must be rebuilt. Now, the Act of 1894 does not in terms contain any such provision. On behalf of the County Council, it was said that the 5th section of the Act of 1894 had that effect. If subsection 6 of section 5 is to be taken according to the usual rules of construction of interpretation clauses, there is nothing in the Act which would apply to the present case. The expression "new building" is not used in those parts of the Act which are material. But, according to the ordinary rules of construction, is there anything more in the interpretation clause? I think (with great hesitation) that this interpretation clause is an enacting clause, and not a mere interpretation clause. The Legislature could never have intended to destroy section 10 of the Metropolitan Building Act 1855. But the question is not what the Legislature intended, but what it has done. It is extremely material to observe that this so-called interpretation clause actually does contain one or more enactments—for example, subsection 4 and subsection 7; and to my mind subsection 6 is so expressed that we can come to the conclusion that it is an enacting clause. If

the interpretation clause is not to be construed as I have construed it, it seems to me that section 209 would have very little effect at all. I think that Parliament in enacting the definition clause did consider subsection 6 of the definition clause as an enactment. Then section 210 appears to me as a mere repetition of sections 7 and 9 of the Act of 1855, and strengthens the ground for concluding that the whole of that group of sections should be considered as included in the present Act. I think the magistrate was wrong.

Mr. Justice Willis said: It is with great regret that I find myself unable to agree with my learned brother. The expression "new building" is not to be found in the portions of the London Building Act 1894 which apply to the wall in question. But I think section 208 governs this case. Supposing that this party-wall had been destroyed to the extent of one-half, the proper course under that section would have been to order the whole to be taken down or to make it conform to the provisions of the Act. It seems to me that, if the wall was not destroyed to the extent of one-half, it is enacted that such liability should not attach. It is said that this case comes under subsection 6 of the interpretation clause. I think there is no foundation for saying that there is a substantial enactment in the interpretation clause. There is a string of expressions which are to have the meanings attached to them. If, therefore, I can find any section which contains the expression "new building," that will meet the present case. Now sections 13, 14, 16, 17, 63, 160, 209, and 210 all contain the expression "new building." It seems to me that the interpretation clause is satisfied by giving the extended meaning to the words "new building" which is contained in the definition clause. I therefore think the learned magistrate was right, and that our judgment must be for the respondent.

Mr. Justice Wright then withdrew his judgment.

Building Line—"Building, Structure, or Erection."

LAVY AND UPJOHN v. THE LONDON COUNTY COUNCIL.

This was an appeal from a decision of a Divisional Court which came before the Court of Appeal (Lords Justices Lindley, Lopes, and Rigby) on the 15th and 16th July. The facts will be found fully stated in the report of the case in the Court below, at page 524.

The appellants were the owners of a house in the City Road, having a forecourt between it and the highway, bounded on the side of the highway by a dwarf wall with an iron railing thereon. They removed the dwarf wall and railing, and built on the same site a wall 11 feet high and 14 inches thick, which they intended to use for posting advertisements. The respondents, the County Council, summoned the appellants, under section 75 of the Metropolitan Management Amendment Act 1862, for erecting a building, structure, or erection in front of the general building line of the street. After the issue and before the return of the summons the general building line was determined by the superintending architect, and after the return but before the final hearing by the magistrate the architect's decision was confirmed by the Tribunal of Appeal. The magistrate held that the wall was a "building, structure, or erection" within section 75, and ordered it to be demolished. His decision was affirmed by the Divisional Court.

Mr. R. A. McCall, Q.C., and Mr. R. Cunningham Glen were for the appellants; and Mr. A. M. Channell, Q.C., Mr. H. A. Forman, and Mr. F. K. North for the respondents.

Their Lordships, in dismissing the appeal, held, first, that it was not a condition precedent to the issue of the summons that the architect should have determined the general building line; and, secondly, that it was a question of fact for the magistrate to decide whether, in the particular case, the wall was or was not a "building, structure, or erection" within the section, and that there was nothing to show that he had not rightly decided that it was.

